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**RECEIVED**

**APR 18 2007**

**SOUTH DAKOTA PUBLIC  
UTILITIES COMMISSION**

Patricia Van Gerpen  
Executive Director  
South Dakota Public Utilities Commission  
500 East Capitol Avenue  
Pierre, South Dakota 57501-5070

Re: South Dakota Energy Efficiency Plan

Dear Ms. Van Gerpen:

MidAmerican Energy Company is hereby submitting twelve copies of its proposed South Dakota Energy Efficiency Plan for the consideration and approval of the South Dakota Public Utilities Commission. Also included are the proposed tariff sheets necessary to implement this Plan.

The Plan contains programs designed for MidAmerican's gas and electric customers in South Dakota, phased in over a three-year period. For each program, MidAmerican has included design, implementation, costs, projected energy savings, and cost-effectiveness data. The Plan includes a phase-in of particular programs over a three-year period commencing in January 2008, annual reporting to the Commission and a cost recovery mechanism. If there are any questions concerning this filing, I can be contacted at (563) 333-8006.

Sincerely,

bc: Dean Crist  
Naomi Czachura  
Deb Kutsunis  
Rick Leuthauser



## Introduction

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With this filing, MidAmerican Energy Company proposes to begin offering energy-efficiency programs to its electric and natural gas customers in South Dakota. MidAmerican has offered similar programs in Iowa for over 16 years and looks forward to helping customers take advantage of the new South Dakota programs to lower energy costs, improve business competitiveness and help the environment.

### 1. Overview of Programs

MidAmerican proposes to introduce a comprehensive program portfolio over a three-year period beginning Jan. 1, 2008. Table 1 lists the programs that will be offered along with their implementation schedules.

Most programs will be offered as joint electric and natural gas programs. For example, MidAmerican will hire one residential audit contractor to serve all of MidAmerican's electric and natural gas customers. However, MidAmerican will only provide rebates for measures that save energy sold by MidAmerican. For example, customers who purchase natural gas only will not be eligible to receive rebates for compact fluorescent lamps (which save electricity). When appropriate, MidAmerican also will work with other South Dakota utilities to share costs and program resources to make it as easy as possible for South Dakota customers to participate in multi-fuel programs.

MidAmerican has designed a comprehensive program portfolio to meet the varied needs of different customers. The programs offer services to:

- Electric and natural gas customers,
- Residential, commercial and industrial customers,

- Large and small customers,
- Homeowners, commercial building owners and tenants,
- Customers in existing and new buildings and
- Customers buying individual pieces of equipment and customers pursuing more comprehensive energy-efficiency solutions.

**Table 1**  
**South Dakota Program Implementation Schedule**

Program	Marketing Name	Fuel		Implementation Year		
		Natural Gas	Electric	2008	2009	2010
Residential						
Residential Equipment		✓	✓	✓		
Residential Energy Audit	HomeCheck <sup>SM</sup>	✓	✓	✓		
Residential Load Management	SummerSaver <sup>SM</sup>		✓		✓	
Residential New Construction	New Homes	✓	✓			✓
Low Income		✓	✓	✓		
Nonresidential						
Nonresidential Equipment		✓	✓	✓		
Small Commercial Energy Audit	BusinessCheck <sup>SM</sup>	✓	✓	✓		
Nonresidential Load Management	Curtailment		✓		✓	
Commercial New Construction		✓	✓			✓
Nonresidential Custom	Custom Systems	✓	✓			✓

The five residential programs include:

***Residential Equipment*** program, which provides rebates to encourage customers to purchase high-efficiency space conditioning and water heating equipment from participating contractors.

***Residential Audit*** program (or HomeCheck), which provides free energy audits, direct installation of simple energy-efficiency measures and rebates for more extensive building shell retrofits, and also coordinates MidAmerican's participation in the national *Change a Light*,

*Change the World* retail sales campaign for compact fluorescent lamps, which is organized by the U.S. Environmental Protection Agency.

***Residential Load Management*** program (or SummerSaver), which provides financial incentives to customers that allow MidAmerican to control their central air conditioning on summer peak days.

***Residential New Construction*** program (or New Homes), which provides financial incentives to builders that implement comprehensive energy-efficiency strategies in new homes.

***Residential Low-Income*** program, which utilizes local community action program agencies to provide free energy audits and free installation of lighting, water heating and insulation measures for low-income customers that qualify for the federal Weatherization Assistance Program.

The five nonresidential programs include:

***Nonresidential Equipment*** program, which provides rebates to encourage customers to purchase efficient heating, cooling, lighting, motor and commercial kitchen equipment.

***Small Commercial Audit*** program (or BusinessCheck), which serves small business customers by providing energy audits, direct installation of simple energy-efficiency measures and rebates for more extensive projects.

***Nonresidential Load Management*** program (or Curtailment), which provides financial incentives to large customers that commit to curtailing load on summer peak days.

***Commercial New Construction*** program, which provides financial incentives to builders and developers that implement comprehensive energy-efficiency strategies in new building construction.

*Nonresidential Custom* program (or Custom Systems), which provides a delivery channel for any measures that do not fit neatly into MidAmerican's other nonresidential programs.

## **2. Estimated Costs and Benefits**

Table 2 lists estimated implementation costs for each program from 2008 to 2010, including breakdowns between natural gas and electric costs as well as between residential and nonresidential costs. MidAmerican proposes investing over \$4.1 million in these programs over the three-year period, including:

- \$3.7 million on natural gas programs and \$0.4 million on electric programs and
- \$3.2 million on residential programs and \$0.9 million on nonresidential programs.

Accounting systems will ensure that costs for providing the programs are recovered from the appropriate customers: electric program costs from electric customers and natural gas program costs from natural gas customers; residential program costs from residential customers and nonresidential program costs from nonresidential customers.

Table 3 lists estimated implementation costs by functional category, including the incentives paid directly to program participants as well as the support functions, such as administration and advertising that are necessary to deliver programs. Over two-thirds of natural gas costs and almost three-quarters of electric costs provide direct benefits to customers for energy-efficiency measures, either through incentive payments or through equipment and installation costs that MidAmerican incurs directly to operate electric load management programs.



**Table 2**  
**Estimated Budgets by Program (\$000)**

	Natural Gas				Electric				Total			
	2008	2009	2010	3-year Total	2008	2009	2010	3-year Total	2008	2009	2010	3-year Total
<b>Residential</b>												
Residential Equipment	\$398	\$439	\$521	\$1,358	\$12	\$14	\$15	\$41	\$410	\$453	\$536	\$1,399
Residential Audit	\$422	\$437	\$446	\$1,305	\$10	\$9	\$9	\$28	\$432	\$446	\$455	\$1,333
Residential Load Management				\$0		\$36	\$31	\$67		\$36	\$31	\$67
Residential New Construction			\$164	\$164			\$2	\$2			\$166	\$166
Residential Low Income	\$74	\$92	\$93	\$259	\$2	\$3	\$3	\$8	\$76	\$95	\$96	\$267
<b>Total residential</b>	<b>\$894</b>	<b>\$968</b>	<b>\$1,224</b>	<b>\$3,086</b>	<b>\$24</b>	<b>\$62</b>	<b>\$60</b>	<b>\$146</b>	<b>\$918</b>	<b>\$1,030</b>	<b>\$1,284</b>	<b>\$3,232</b>
<b>Nonresidential</b>												
Nonresidential Equipment	\$65	\$48	\$56	\$169	\$27	\$23	\$30	\$80	\$92	\$71	\$86	\$249
Small Commercial Audit	\$148	\$100	\$142	\$390	\$7	\$4	\$5	\$16	\$155	\$104	\$147	\$406
Nonresidential Load Management				\$0		\$71	\$71	\$142		\$71	\$71	\$142
Commercial New Construction			\$25	\$25			\$7	\$7			\$32	\$32
Nonresidential Custom			\$52	\$52			\$3	\$3			\$55	\$55
<b>Total nonresidential</b>	<b>\$213</b>	<b>\$148</b>	<b>\$275</b>	<b>\$636</b>	<b>\$34</b>	<b>\$98</b>	<b>\$116</b>	<b>\$248</b>	<b>\$247</b>	<b>\$246</b>	<b>\$391</b>	<b>\$884</b>
<b>Total Budget</b>	<b>\$1,107</b>	<b>\$1,116</b>	<b>\$1,499</b>	<b>\$3,722</b>	<b>\$58</b>	<b>\$160</b>	<b>\$176</b>	<b>\$394</b>	<b>\$1,165</b>	<b>\$1,276</b>	<b>\$1,675</b>	<b>\$4,116</b>

**Table 3**  
**Estimated Budgets by Function (\$000)**

	Natural Gas				Electric				Total			
	2008	2009	2010	3-Year Total	2008	2009	2010	3-Year Total	2008	2009	2010	3-Year Total
Planning & Design	\$176	\$15	\$25	\$216	\$12	\$2	\$2	\$16	\$188	\$17	\$27	\$232
Administration	\$190	\$200	\$269	\$659	\$11	\$20	\$31	\$62	\$201	\$220	\$300	\$721
Advertising & Promotion	\$70	\$71	\$102	\$243	\$0	\$8	\$9	\$17	\$70	\$79	\$111	\$260
Incentives	\$648	\$807	\$1,063	\$2,518	\$35	\$99	\$111	\$245	\$683	\$906	\$1,174	\$2,763
Monitoring & Evaluation	\$23	\$23	\$40	\$86	\$0	\$7	\$7	\$14	\$23	\$30	\$47	\$100
Equipment	\$0	\$0	\$0	\$0	\$0	\$15	\$10	\$25	\$0	\$15	\$10	\$25
Installation	\$0	\$0	\$0	\$0	\$0	\$9	\$6	\$15	\$0	\$9	\$6	\$15
<b>Total Budget</b>	<b>\$1,107</b>	<b>\$1,116</b>	<b>\$1,499</b>	<b>\$3,722</b>	<b>\$58</b>	<b>\$160</b>	<b>\$176</b>	<b>\$394</b>	<b>\$1,165</b>	<b>\$1,276</b>	<b>\$1,675</b>	<b>\$4,116</b>

### 3. Estimated Energy and Demand Savings

As a result of this investment in program implementation, MidAmerican expects to help customers install over 26,000 energy-efficiency measures in their homes and businesses. By 2010, these measures will reduce MidAmerican's annual energy requirements by almost 731,000 therms of natural gas and almost 1.8 million kilowatt-hours of electricity (see Table 4). These savings represent a little less than 1 percent of MidAmerican's annual natural gas sales and annual electricity requirements (i.e., sales plus line losses) in South Dakota. In addition, the measures will reduce MidAmerican's electric peak demand by almost two megawatts, or almost 0.5 percent of MidAmerican's South Dakota peak demand. If MidAmerican continues to offer these programs after 2010, these cumulative percentage savings will continue to grow. (For example, MidAmerican's Iowa programs now reduce energy and peak demand requirements by around 5 percent.)

**Table 4**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	483,883	1,072,694	1,773,593
Peak Demand (kW)	73	1,714	1,890
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	189,210	418,530	730,870
Peak-Day Demand (therms)	2,720	6,070	10,910

The installed measures will continue to save customers energy and money for many years. (For example, residential furnaces typically last 17 years before requiring replacement.) Over the 30-year period that MidAmerican used to evaluate the costs and benefits of the energy-efficiency programs, the programs are expected to save almost 15 million therms of natural gas and almost 28 million kilowatt-hours of electricity.

#### **4. Cost-Effectiveness**

MidAmerican evaluated the cost-effectiveness of these program investments from a societal perspective. Key features of the societal cost-effectiveness test include the following.

- Costs and benefits both are defined incremental to what would have occurred in the absence of the program.
- Future costs and benefits are discounted at a societal discount rate (which, for this analysis, was assumed to be 5.18 percent).
- Costs include:
  - Incremental costs that program participants incur to purchase energy-efficient equipment, defined relative to the standard equipment they would have installed in the absence of the program,
  - Utility costs for administering the program, including costs for planning and design, administration, advertising and promotion and monitoring and evaluation and
  - Only those costs required to add participants over the 2008-10 period covered by this filing, as well as any additional costs required to maintain participation and associated savings over the lifetimes of the measures installed during the 2008-10 period.
- Costs do not include the financial incentives that are transferred from the utility to program participants, since from a societal perspective, these costs are a cost to one societal subgroup (the utility) and an offsetting benefit to another societal subgroup (program participants).
- Benefits include:
  - Avoided utility supply costs over the lifetimes of the measures installed from 2008-10 and



- Externalities, or those benefits that are not explicitly monetized within avoided supply costs. (For this analysis, externalities were calculated as 10 percent of avoided electric supply costs and 7.5 percent of avoided gas supply costs.)

Table 5 presents the results of the cost-effectiveness analysis of the 10 programs proposed for implementation by MidAmerican. Overall the programs are expected to create net benefits to society - that is, South Dakota's customers and the state's economy - of almost \$3.4 million. The benefit-cost ratio for the programs is 1.63. That is, for every dollar invested by customers and MidAmerican in energy-efficient equipment and program costs, \$1.63 is created in lower utility supply costs and associated externalities.

**Table 5**  
**Societal Cost-Effectiveness Results**

Lifecycle Societal Benefits (NPV)	\$ 8,723,537
Lifecycle Societal Costs (NPV)	\$ 5,346,794
Net Societal Benefits (NPV)	\$ 3,376,743
Benefit-Cost Ratio	1.63

MidAmerican also evaluated the societal cost-effectiveness of each individual program and includes those results in Sections B and C. For the program cost-effectiveness evaluations, each program was assumed to add participants for three years so that all programs could reach their full participation potential. For example, the Residential Equipment program, which begins in 2008, was assumed to add participants from 2008-10, while the Residential New Construction program, which begins in 2010, was assumed to add participants from 2010-12. Although these timeframes were used to fairly evaluate the cost-effectiveness of individual programs, MidAmerican is not seeking approval to operate programs past 2010 at this time. In addition, the

total results presented earlier in this section represent only the costs and benefits associated with participants added during the term of the proposed plan, i.e., 2008-10.

## 5. Environmental Benefits

The programs also will reduce emissions by reducing the need for natural gas burned in end use equipment, as well as the coal and natural gas required to generate electricity. Table 6 estimates the reduction in air pollution and greenhouse gases that the programs will provide over the life of the installed measures.

**Table 6**  
**Reduction in Air Emissions from Energy-Efficiency Programs**

Emission	Reduction from 2008-2038 (tons)
Carbon Dioxide (CO <sub>2</sub> )	119,352
Sulfur Oxides (SO <sub>x</sub> )	91
Nitrogen Oxides (NO <sub>x</sub> )	113
Carbon Monoxide (CO)	50
Particulate Matter (PM <sub>10</sub> )	11

## 6. Cost-Recovery Adjustment Clause

MidAmerican is requesting approval of a cost-recovery adjustment clause to recover the costs for implementing these programs, including the lost revenues that will result from lower natural gas sales. Section E provides a detailed discussion of the cost-recovery proposal and calculations. Table 7 presents the energy-efficiency cost recovery factors that MidAmerican proposes for 2008.

**Table 7**  
**Proposed 2008 Cost-Recovery Factors**

	Natural Gas	Electric
Residential	\$0.01650 per therm	\$0.00064 per kWh
Nonresidential	\$0.00556 per therm	\$0.00020 per kWh

## **7. Implementation Issues**

MidAmerican's experience implementing energy-efficiency programs has helped it identify a number of implementation issues that may arise as the programs are introduced in South Dakota. In this section, MidAmerican describes these key issues and, for each, makes a recommendation about how to manage the issues in South Dakota. The issues include:

- a. Managing participation and budgets,
- b. Continuous program and process improvement,
- c. Reporting,
- d. Coordinating with other utilities and
- e. Customer satisfaction.

### ***a. Managing Participation and Budgets***

In this filing, MidAmerican provides budget estimates for each program and year based on estimates of participation and rebate levels for each measure offered in each program.

MidAmerican used its Iowa experience, augmented by available South Dakota market information, to estimate South Dakota participation, assuming that it will take two or three years for the South Dakota programs to reach full participation rates.

For any program and any year, participation and spending may vary substantially from these estimates. For example, pent up demand or general customer interest may cause some programs to take off right away and not require the two- to three-year growth period assumed in the budget estimates. Other programs may take longer to become established.

Other factors beyond MidAmerican or customer control can have substantial impacts on program participation and budgets. For example, MidAmerican has offered a residential audit program in Iowa for over 16 years. While participation in most years is stable and somewhat

predictable, events such as extreme weather, high natural gas (energy) prices and media attention can lead to large participation swings. In a typical heating season, MidAmerican completes around 6,000 audits; after the high natural gas prices and media attention that followed the Gulf hurricanes in late 2005, MidAmerican completed almost 10,000 audits in the 2005-06 winter season.

Additional factors also may affect program participation and budgets. For example, the new construction programs are driven by levels of construction activity, which in turn can be affected by interest rates and the general health of the economy. The general economy also affects other programs, but usually to a lesser extent. For example, residential and business customers may defer major purchases of heating, ventilating and air conditioning equipment if the economy is performing poorly. And large industrial customers may expand or contract their manufacturing operations in reaction to economic conditions, possibly influencing their level of participation in the Nonresidential Load Management program.

MidAmerican makes the following recommendations for managing the issue of uncertain program participation levels in South Dakota.

***Ensure program stability.*** MidAmerican recommends that programs continue to provide stable, predictable rebates to customers and trade allies, even if program spending in a given year exceeds the estimates provided in this filing. MidAmerican recommends against abruptly stopping individual programs as budgets run out. Experience has shown that stopping programs leads customers and trade allies to lose faith in the programs, causing participation in the programs (and customer satisfaction) to deteriorate.

***Manage total budgets rather than individual program budgets.*** MidAmerican has developed a portfolio of programs to implement in South Dakota. The portfolio effect can help



offset budget swings in individual programs to the extent that some programs spend below their budget estimates while others exceed budgeted levels. MidAmerican has proposed a cost-recovery approach that allocates costs between electric and natural gas customers and residential and nonresidential customers. If individual programs exceed budgets, but other programs under-spend, in some cases the overall class cost-recovery factors could still remain at levels approved as part of this filing.

***Adapt utility supply planning.*** The proposed programs all are cost-effective at the participation levels proposed in this filing; that is, they provide more in benefits from reduced electric and natural gas supply needs than they require in investments for efficient equipment and program implementation costs. Each of the programs would be even more cost-effective - that is, would deliver higher net benefits to South Dakota customers - at higher participation levels. In order to ensure that the most benefits flow to South Dakota customers, MidAmerican will manage its electric and natural gas supply planning systems to capture the benefits of lower energy and demand levels (i.e., adjusting supply purchases and construction to reflect energy savings from the energy-efficiency programs).

***Adapt program operations.*** While some of the key factors that drive program participation are beyond MidAmerican's control, MidAmerican also has some tools at its disposal to affect participation levels. For example, MidAmerican can adjust its promotional activities, increasing press coverage and targeted advertising when participation is below goals and decreasing these activities when participation exceeds goals. In addition, MidAmerican can adjust eligibility requirements for certain measures and programs to help spur or dampen participation. For example, MidAmerican proposes to introduce the South Dakota Residential Audit program with eligibility limited to houses built prior to Dec. 31, 1986. If participation lags

for this program, MidAmerican may change eligibility to include newer homes and more customers.

***b. Continuous Program and Process Improvement***

MidAmerican has developed programs for South Dakota based on programs that have evolved in Iowa over the last 16 years. The program descriptions provided in Sections B and C describe the measures, rebates, promotional strategies and other features that are currently used to successfully implement programs.

MidAmerican's programs have improved over the last 16 years and MidAmerican expects continuous improvement in the future. For example, over the last few years, MidAmerican has:

- Changed qualifying efficiencies and rebate levels for residential and small commercial air conditioning equipment to reflect changes in federal equipment-efficiency standards,
- Changed qualifying requirements and rebate levels for the residential and nonresidential new construction programs to reflect changes in the Iowa building code, the International Energy Conservation Code and the U.S. EPA's ENERGY STAR<sup>®</sup> homes program,
- Increased rebates for natural gas heating and water heating equipment as well as residential insulation to help customers respond to sharp increases in natural gas prices,
- Added point-of-sale rebates for compact fluorescent lighting to the Residential Audit program, in coordination with the *Change A Light, Change the World* campaign and
- Added a range of measures to the Nonresidential Equipment program to help business customers improve the efficiency of commercial kitchen equipment.

MidAmerican makes the following recommendations for ensuring continuous program and process improvement in its South Dakota programs.

***Create periodic long-term plans.*** MidAmerican's current proposal for South Dakota covers the years 2008 through 2010. Upon successful completion of the initial plan, MidAmerican proposes to file a plan update in 2010 to recommend new program features and to project program costs and savings for an additional period.

***Perform annual research and development.*** MidAmerican performs an annual research and development effort to review new energy-efficiency technologies; program measures and features offered by utilities in other jurisdictions; changes in government standards for equipment and buildings and other issues that affect program operations. From this annual effort, MidAmerican may propose changes in measure offerings, eligibility requirements, rebate levels and other program features for the coming year. This annual effort will allow programs to continuously improve and adapt to current market conditions.

***Perform periodic process evaluations.*** Periodically, MidAmerican performs formal process evaluations to help ensure continuous improvement of its programs. Process evaluations use independent evaluators to capture feedback from program participants, other customers, trade allies, program contractors and MidAmerican staff. The evaluators use the information they collect to structure specific recommendations for program improvements.

### ***c. Reporting***

MidAmerican believes it is important to provide the South Dakota Public Utilities Commission (PUC) and the PUC staff with timely reports on program results but also recognizes a need to balance the costs of preparing reports with the benefits those reports provide. MidAmerican recommends the following reporting process for this South Dakota plan.

***File annual reports.*** MidAmerican proposes to file an annual report to the PUC each year that details program results for the previous calendar year and lays out key changes to be

implemented in the current year. For example, the 2009 report will provide results for 2008 programs and describe changes planned for 2009.

In the annual report, MidAmerican will provide reviews of each individual program, outlining key quantitative results (e.g., participation levels) for the previous year, key successes and challenges addressed in the previous year and key changes to be implemented in the current year.

MidAmerican also will provide data tables across all programs that outline:

- Spending by program, fuel and functional cost category,
- Energy and demand savings, by program and fuel and
- Cost-effectiveness results, by program.

***Conduct formal update meetings.*** MidAmerican proposes to meet with the PUC staff once each year to review program operations for the current year and preview expected program changes for the coming year. At the meeting, MidAmerican will provide a formal presentation to review each program and other key issues and also allow time for discussion with staff.

***Reconcile cost-recovery adjustment clause.*** MidAmerican proposes to make an annual filing that reconciles the cost-recovery adjustment clause. The reconciliation will take into account actual program costs, program savings and total sales for the previous year and estimated costs, savings and sales for the coming year, and calculate new charges.

***Continue other informal communications.*** MidAmerican encourages ongoing informal communication with the PUC staff to keep them informed of program operations and decisions as other issues arise. While MidAmerican maintains sole responsibility for program management, it prefers to make management decisions that incorporate feedback from the staff, benefiting from staff experience and insights and limiting the possibility for misunderstandings.



#### *d. Coordinating With Other Utilities*

MidAmerican serves approximately 82,000 customers in South Dakota, including almost 81,000 natural gas customers, slightly less than 4,000 electric customers and over 2,000 combined-service customers. MidAmerican's programs address electric as well as natural gas measures, but most of MidAmerican's customers only will be eligible for the natural gas measures. This situation will present some challenges for program implementation, including communicating clearly to customers to make sure they understand program eligibility requirements; delivering programs in an efficient and cost-effective manner, even when only one fuel is covered and helping customers that are interested in implementing comprehensive energy-efficiency strategies.

In Iowa, MidAmerican works jointly with the other investor-owned utilities and some of the municipal utilities to coordinate services and rebates. For example, in the residential audit program, the utilities share a common audit contractor. The utility providing the heating fuel pays for the audit, the auditor coordinates installation and specification of both electric and natural gas efficiency measures and the utilities work together to ensure that the appropriate utility funds the appropriate measures.

#### *e. Customer Satisfaction*

MidAmerican has many reasons for implementing energy-efficiency programs in South Dakota. The programs clearly are cost-effective; they will create millions of dollars of benefits to South Dakota customers; they help MidAmerican meet its short- and long-term supply needs and they help MidAmerican reduce its environmental footprint.

But MidAmerican also implements these programs for a simpler reason: customers like them. MidAmerican's Iowa customers have come to rely on the programs and they have an

expectation that MidAmerican will help them manage their utility costs. Maintaining customer satisfaction is a key driver for MidAmerican in offering energy-efficiency programs.

The fact that MidAmerican historically has not offered the programs in South Dakota has created some customer satisfaction issues. While MidAmerican is regulated separately in Iowa and South Dakota, customers do not always fully recognize this difference. Media messages cannot be contained within state boundaries and when South Dakota customers become aware of the Iowa programs, they may not understand why the programs are not offered in South Dakota as well.

MidAmerican has the following recommendations for using the South Dakota programs to increase customer satisfaction.

***Offer consistent programs.*** MidAmerican's goal is to offer consistent programs across all of its state jurisdictions. As with any new venture, it will take time for the South Dakota programs to become established; initially, there may be small differences between the South Dakota programs and those currently offered in Iowa (and those MidAmerican hopes to be offering in Illinois in the near future). For example, in order to gradually phase in the impact of cost-recovery on customer rates, MidAmerican has proposed phasing in its programs over three years. However, MidAmerican's long-term goal is to work with each jurisdiction so that programs can be as similar as possible for all customers.

***Focus on the customer.*** MidAmerican's programs have been designed to make it easy for customers to participate. MidAmerican has researched the key barriers customers face in adopting energy-efficiency strategies and developed financial incentives, technical assistance and other program features to overcome these barriers.

***Invest in infrastructure.*** MidAmerican attracts customers to the programs by offering financial incentives but the programs would not be successful without additional investments in program infrastructure. Advertising is needed to increase customer awareness; trade ally management to help local contractors, architects, engineers and other professionals sell the services; monitoring and evaluation to track program performance and administrative systems to ensure efficient program operation. By investing in these additional systems, MidAmerican helps ensure that customers enjoy their participation in quality programs.

***Remain flexible.*** While MidAmerican has designed the program requirements to meet the needs of most customers, it also understands that some customers need special services. Program managers work with individual customers to make sure their needs are being met.

## **8. Organization of This Report**

The remainder of this filing provides additional detail on the programs and their expected results. After this introduction, the filing includes the following sections.

- Section B describes the five residential programs.
- Section C describes the five nonresidential programs.
- Section D describes support functions required to deliver the programs, including a monitoring and evaluation plan and an accounting plan.
- Section E provides a cost-recovery proposal, addressing the regulatory framework for cost-recovery, proposing language for cost-recovery riders and estimating natural gas and electric riders.

# **Residential Equipment Program**

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## **1. Program Description**

This program promotes the purchase of high-efficiency equipment by residential customers in new and existing housing. The program provides customers with rebates to offset the higher purchase cost of efficient equipment, as well as information on the features and benefits of efficient equipment. Targeted equipment includes air conditioners, heat pumps, furnaces, boilers and water heaters. The program is delivered in partnership with a network of HVAC contractors and administered by a program contractor. MidAmerican will implement the program in South Dakota beginning in 2008.

## **2. Operations**

This program is dealer-driven; that is, it relies on equipment dealers to promote the program, help customers understand the features and benefits of high-efficiency equipment, help customers select high-efficiency equipment and help customers fill out program applications. Customers are welcome to participate in the program on their own, but most dealers are well versed in the program and happy to help customers navigate the program process.

The program is fairly streamlined. Key steps in program participation include:

- Completing the program application,
- Ensuring that equipment meets program qualifications,
- Processing rebate checks for qualified equipment and
- Verifying equipment installation for a sample of participants.

The program contractor provides a range of support functions to manage the program, including processing applications, tracking program data, answering questions from dealers and

customers, verifying equipment installations and coordinating rebate distribution with MidAmerican's accounts payable department.

MidAmerican staff and additional contractors also provide additional support in the form of research and development into new measures, promotion and monitoring and evaluation.

### **3. Value Proposition**

Customers participating in the program receive three main benefits.

- They *save money* in the short term through rebates and in the long term through lower utility bills.
- They *feel secure* knowing that they have purchased a product endorsed by MidAmerican, since the program provides the information necessary to make the best purchase decision.
- They *help out* by reducing energy use, its associated environmental impact and the need to build new power plants.

### **4. Customer Targets**

This program targets residential customers and landlords of residential customers in existing housing that purchase the equipment promoted through the program. The program targets customers replacing existing equipment, but also is available to customers purchasing equipment for the first time, as well as customers in new construction who are not interested in participating in the comprehensive new construction program.

The program will be available throughout MidAmerican's South Dakota service territory. However, the equipment must be fueled by gas and/or electricity supplied directly by MidAmerican.

Landlords installing larger equipment for master-metered multifamily buildings may use available nonresidential programs for technical and financial assistance.



Table 1 outlines customer eligibility requirements.

**Table 1**  
**Customer Eligibility Parameters**

	<b>Electric Equipment</b>	<b>Gas Equipment</b>
<b>Customer Class</b>	Building on residential electric rate	Building on residential gas rate
<b>Customer Status</b>	Customer homeowners; Landlords of customers	Customer homeowners; Landlords of customers
<b>Building Type</b>	Single-family; Multifamily (served by residential rate); Mobile home	Single-family; Multifamily (served by residential rate); Mobile home
<b>Building Vintage</b>	New or existing construction	New or existing construction
<b>Geography</b>	Installed in MidAmerican South Dakota electric territory	Installed in MidAmerican South Dakota gas territory

## **5. Trade Ally Targets**

Any business that sells or installs qualifying equipment within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- HVAC dealers,
- Plumbers and
- Large retail outlets (such as Lowe's and Home Depot).

## **6. Eligible Measures**

Attachment B1-1 provides the rebates schedule for MidAmerican's 2007 Residential Equipment program. MidAmerican expects the equipment and eligibility requirements for the South Dakota program to follow this same schedule. MidAmerican also plans to offer rebates for high-efficiency electric water heaters. However, MidAmerican performs an annual review of qualifying equipment and reserves the right to adjust measures and eligibility levels in the future as market conditions change.

## **7. Financial Incentives**

The program provides rebates, defined on a per-device basis, to program participants installing qualifying equipment. For some equipment, the rebate will be a fixed amount per device while, for other equipment, the rebate will increase with increasing equipment efficiency. MidAmerican expects the financial incentives for the South Dakota program to follow the schedule provided in Attachment B1-1. However, MidAmerican performs an annual review of qualifying equipment and reserves the right to adjust measures and rebate levels in the future as market conditions change.

## **8. Promotion**

This program will rely primarily on point-of-sale dealer information to promote the program. MidAmerican will develop a brochure that outlines the program's features, benefits, eligibility requirements and financial incentives, and send copies to targeted trade allies. In addition, MidAmerican will highlight the program in bill inserts provided to all residential customers and conduct limited newspaper and Internet advertising.

## **9. Participation**

Table 2 provides program participation assumptions.

**Table 2**  
**Participation**

	2008	2009	2010
<b>Electric Measures</b>			
Central Air Conditioners	17	21	25
Air-Source Heat Pumps	2	3	3
Geothermal Heat Pumps	1	2	2
Geothermal Ground Loops	1	2	2
Desuperheater Water Heaters	1	2	2
Room Air Conditioners	1	2	2
Electric Water Heaters	7	9	11
<b>Natural Gas Measures</b>			
Furnaces	880	1,091	1,314
Boilers	13	16	19
Gas Water Heaters	165	205	247

## 10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	16,114	45,497	75,648
Peak Demand (kW)	6	14	23
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	75,530	169,170	281,890
Peak-Day Demand (therms)	1,090	2,450	4,080



## 11. Budget

Table 4 provides program budget assumptions.

**Table 4  
Budget**

	2008	2009	2010
<b>Electric Budget</b>			
Planning & Design	\$2,000	\$0	\$0
Administration	\$2,000	\$2,000	\$2,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$8,000	\$12,000	\$13,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	<b>\$12,000</b>	<b>\$14,000</b>	<b>\$15,000</b>
<b>Natural Gas Budget</b>			
Planning & Design	\$39,000	\$5,000	\$5,000
Administration	\$58,000	\$60,000	\$61,000
Advertising & Promotion	\$23,000	\$23,000	\$24,000
Customer Incentives	\$272,000	\$345,000	\$425,000
Monitoring & Evaluation	\$6,000	\$6,000	\$6,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Natural Gas Total</b>	<b>\$398,000</b>	<b>\$439,000</b>	<b>\$521,000</b>
<b>Total Budget</b>			
Planning & Design	\$41,000	\$5,000	\$5,000
Administration	\$60,000	\$62,000	\$63,000
Advertising & Promotion	\$23,000	\$23,000	\$24,000
Customer Incentives	\$280,000	\$357,000	\$438,000
Monitoring & Evaluation	\$6,000	\$6,000	\$6,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Total</b>	<b>\$410,000</b>	<b>\$453,000</b>	<b>\$536,000</b>

## 12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results**

Lifecycle Societal Benefits (NPV)	\$ 2,221,507
Lifecycle Societal Costs (NPV)	\$ 1,468,873
Net Societal Benefits (NPV)	\$ 752,634
Benefit-Cost Ratio	1.51

Attachment B1-1

2007 Iowa

Residential Equipment Rebate Schedule

## Natural Gas Furnace Rebates

AFUE	REBATE AMOUNT
92%	\$250
93%	\$275
94%	\$300
95%	\$325
96%	\$350 (max. rebate)

## Natural Gas Boiler Rebates

AFUE	REBATE AMOUNT
85-89.9%	\$100
90%	\$200
91%	\$250
92%	\$300
93%	\$350
94%	\$400 (max. rebate)

## Air Conditioner Rebates

SEER	REBATE AMOUNT
14	\$200
15	\$300
16	\$400 (max. rebate)

## Rebate Schedule

EQUIPMENT TYPE	ENERGY-EFFICIENCY RATING	REBATE AMOUNT	TERMS AND CONDITIONS
Natural Gas Furnaces	92% AFUE or greater	$\$250 + (\$25 \times (\text{AFUE} - 92))$	Incentives calculated in increments of .1 AFUE; Maximum rebate \$350
Natural Gas Boilers	85 - 89.9% AFUE 90% or greater	85 - 89.9% - \$100 90% or greater: $\$200 + (\$50 \times (\text{AFUE} - 90))$	Incentives calculated in increments of .1 AFUE; Maximum rebate \$400
Natural Gas Water Heaters	< 40 gal: 0.64 EF or greater 40-59 gal: 0.62 EF or greater >= 60 gal: 0.85 TE or greater	\$50	EF: Energy Factor TE: Thermal Efficiency
Window Air Conditioners 5,000-7,999 BTU 8,000-13,999 BTU 14,000-19,999 BTU >= 20,000 BTU	ENERGY STAR® EER >= 10.7 EER >= 10.8 EER >= 10.7 EER >= 9.4 EER	\$50	Must be ENERGY STAR-rated
Central Air Conditioners	14 SEER or greater	$\$200 + (\$100 \times (\text{SEER} - 14))$	Must install a new matched condenser & coil; Incentives calculated in increments of .1 SEER; Maximum rebate \$400
Air-to-Air and Add-On Heat Pumps	>= 14 SEER and >= 8.5 HSPF	$\$400 + (\$100 \times (\text{SEER} - 14))$ ; Max \$600	Minimum 18,000 Btuh/unit; Incentives calculated in increments of .1 SEER
	>= 14 SEER and < 8.5 HSPF	$\$200 + (\$100 \times (\text{SEER} - 14))$ ; Max \$400	HSPF: Heating Seasonal Performance Factor
Ground-Source Heat Pumps			Rebates are per home and not per heat pump. Rebates are for single-family homes only; please call for rebate information on multifamily homes.
New Systems Closed loop Open system Replacement Equipment GSHP Desuperheaters	3.3 COP and 14.1 EER 3.6 COP and 16.2 EER 3.3 COP and 14.1 EER	\$2000/home \$1000/home \$1000/home \$100/home	Equipment and new ground loop installation only

All units must be rated by the Air Conditioning and Refrigeration Institute or the Gas Appliance Manufacturers Association.

## PARTICIPATION GUIDELINES

Participating in the EnergyAdvantage® Residential Equipment program is easy. After installing qualifying equipment, simply submit a completed Equipment Rebate Application and detailed invoice to MidAmerican for approval. Your heating and cooling dealer has a supply of Equipment Rebate Applications and will participate in its completion. Your application must be postmarked by Jan. 31, 2008. Equipment included in the EnergyAdvantage New Homes program comprehensive incentive is not eligible for additional incentives in the Residential Equipment program. For more information, please call 800-894-9599.

DISCLAIMER: MidAmerican does not guarantee that installation and operation of energy-efficient equipment will result in reduced usage or in cost savings. The manner in which a customer uses and maintains energy-efficient equipment affects potential cost savings. MidAmerican makes no warranties, expressed or implied, with respect to any equipment purchased or installed, including, but not limited to, any warranty of merchantability or fitness for a particular purpose. In no event shall MidAmerican be held liable for any incidental or consequential damages or injuries resulting from defective equipment or installation. MidAmerican reserves the right to cancel or change these programs at any time. MidAmerican's acceptance of this application does not guarantee payment of rebate or acceptance of financing.



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## Residential Audit Program

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### 1. Program Description

This program encourages comprehensive efficiency improvements in existing homes by providing free online and on-site energy audits, on-site installation of simple energy-efficiency measures and financial incentives for insulation improvements. The program also coordinates with the annual *Change A Light, Change the World* campaign sponsored by the U.S. Environmental Protection Agency to encourage installation of compact fluorescent lamps (CFLs). The program is delivered through three program contractors and a network of insulation installers and operates under the service mark HomeCheck<sup>SM</sup>. MidAmerican will implement the program in South Dakota beginning in 2008.

### 2. Operations

This program is delivered primarily by the audit contractor, who provides the on-site audits, installs the low-cost measures, specifies and verifies the building shell measures, maintains inventory of low-cost measures, maintains a network of insulation installers, coordinates rebate distribution with MidAmerican's accounts payable department and provides program tracking.

The program also relies on two additional program contractors to deliver specific program components. One contractor provides the online audit functionality, which is available to all MidAmerican customers on MidAmerican's Web site. Another contractor manages the participation in the *Change A Light* campaign, coordinating with retailers selling compact fluorescent lamps as well as the fulfillment houses responsible for managing rebate coupons.

Key steps in the on-site audit component include:

- Scheduling and completing an on-site audit, during which the auditor evaluates a range of efficiency opportunities, directly installs key low-cost measures and helps customers determine appropriate next steps,
- Coordinating, where appropriate, with an insulation installer for insulation measures,
- Processing insulation rebate checks and
- Verifying insulation installation for a sample of participants.

The program also offers an online energy audit tool to give customers an opportunity to evaluate their own energy usage and opportunities for efficiency improvements. Customers using the online tool also can request an on-site audit by completing a simple Web form.

### 3. Value Proposition

Customers participating in the program receive the following benefits.

- They receive *trustworthy energy-efficiency advice* from comprehensive online and in-person energy audits.
- They receive *immediate savings* through the direct installation of low-cost lighting, water heating and other measures, as well as through CFLs purchased through the *Change A Light* campaign.
- They receive *significant savings, increased comfort* and *increased housing values* through building shell improvements.
- They *lower the hassle* and receive the benefit of *having someone else* involved in identifying and installing efficiency measures. They can rely on the program contractor to schedule audits, maintain quality control and provide ongoing reminders to ensure follow-through on savings recommendations.

#### 4. Customer Targets

This program targets residential customers (and their landlords) in existing housing who purchase their heating fuel from MidAmerican. Initially, MidAmerican will limit participation to housing constructed prior to Dec. 31, 1986, in order to manage participation levels and focus on those homes most likely to require insulation improvements. Using its Iowa experience as a model, MidAmerican expects to change this eligibility requirement over time. (For example, when MidAmerican began its Iowa program, only houses constructed prior to 1975 were eligible; the current program requires houses to be constructed prior to Dec. 31, 1996.) Customers in rental housing must have approval from building owners to participate in the program.

When multifamily buildings receive at least some service on nonresidential tariffs – either because the building is master-metered or because common areas and building systems are served on nonresidential tariffs - customers receive services in coordination with the Small Commercial Audit program (BusinessCheck<sup>SM</sup>).

MidAmerican also will attempt to coordinate with other utilities to better meet the needs of customers served by multiple utilities (e.g., purchasing natural gas from MidAmerican and electricity from another utility). In Iowa, MidAmerican works with other utilities to increase convenience for customers by sharing the costs of audits, direct installation measures and insulation rebates.

All electric customers are eligible for the *Change A Light* campaign. All electric and natural gas customers are eligible for the online audit.

Table 1 outlines customer eligibility requirements.



**Table 1**  
**Customer Eligibility Parameters**

	<b>Online Audit</b>	<b>On-Site Audit</b>	<b>Low-Cost Measures</b>	<b>Insulation Rebate</b>	<b>Lighting Campaign</b>
<b>Customer Class</b>	Residential rates	Residential rates	Residential rates	Residential rates	Residential rates
<b>Customer Status</b>	Homeowners; Landlords	Homeowners; Landlords	Homeowners; Landlords	Homeowners; Landlords	Customers
<b>Building Type</b>	Single-family; Multifamily; Mobile home	Single-family; Multifamily	Single-family; Multifamily	Single-family; Multifamily	Single-family; Multifamily; Mobile home
<b>Building Vintage</b>	All ages	1986 or before	1986 or before	1986 or before	All ages
<b>Heating Utility</b>	All fuels	MidAmerican	MidAmerican*	MidAmerican*	N/A
<b>Cooling Utility</b>	All fuels	N/A	N/A	MidAmerican*	N/A
<b>Geography</b>	All customers	South Dakota	South Dakota	South Dakota	South Dakota
<b>Other</b>	N/A	N/A	N/A	Pre-qualified during on-site audit	N/A

\* If possible, MidAmerican will coordinate with other utilities to deliver program to customers served by multiple utilities.

## 5. Trade Ally Targets

The key trade allies for this program include:

- Insulation contractors and
- Retailers participating in the *Change A Light* campaign.

All insulation contractors (or customers themselves) are eligible to install approved building shell measures. However, MidAmerican will maintain a list of preferred insulation contractors who meet MidAmerican's quality-control requirements and who also provide MidAmerican customers with pre-specified prices (that the auditor can quote during the audit). Customers relying on contractors not on MidAmerican's preferred list receive incentives based on the pricing offered by the preferred contractors; however, incentives will not exceed

customers' actual costs. MidAmerican also performs a higher percentage of quality-control verifications for contractors not on the preferred list.

Also, customers can work with other contractors to install additional measures recommended in the online or on-site audits that are not eligible for financial incentives.

## **6. Eligible Measures**

During the on-site audit, the auditor may install the following measures:

- Water heater insulation blanket,
- Water heater pipe insulation,
- Faucet aerators,
- Low-flow showerheads,
- Water bed mattress pads,
- Programmable thermostats and
- Compact fluorescent lamps.

MidAmerican also will provide financial incentives to customers adding appropriate levels of insulation to ceilings, walls, foundations and band joists.

The *Change A Light* campaign also encourages customers to purchase compact fluorescent lamps from participating retail outlets.

## **7. Financial Incentives**

The program offers participants three types of cost subsidies to lower or eliminate market barriers related to high cost of energy-efficient equipment.

- ***Full subsidies*** are offered for lighting and water heater measures that can be directly installed during the audit. The strategy here is to fully overcome market barriers concerning cost and perceived quality.

- ***Partial subsidies*** are offered for programmable thermostats that can be directly installed during the audit. In these cases, the customer pays MidAmerican only a portion of the full cost of qualifying measures. This strategy requires a shared customer investment to help ensure that customers will utilize the measures to fully realize efficiency benefits.
- ***Rebates*** will be offered for some qualifying measures, such as insulation and lights purchased through the *Change A Light* campaign. Insulation rebates representing a portion of total installed cost will be sent by MidAmerican to the homeowner (following installation verification, if appropriate). The strategy is to lower costs to a level likely to move customers to follow through with the recommendations. Rebates for *Change A Light* will be defined for qualifying equipment and be available through point-of-sale rebate coupons to offset a portion of the purchase costs.

In 2007, MidAmerican insulation rebates were set at 70 percent of qualified installation costs, capped at a total of \$600 per household for any combination of ceiling, sidewall, crawl space and band joist insulation projects. MidAmerican also made available to households a separate insulation rebate for foundation insulation projects at 70 percent of qualified installation costs capped at a total of \$600. In 2007, rebates for *Change A Light* averaged \$1.65 per lamp. MidAmerican expects to set financial incentives for the South Dakota program at similar levels. However, MidAmerican performs an annual review of qualifying equipment and reserves the right to adjust measures and rebate levels in the future as market conditions change.

## **8. Promotion**

MidAmerican will rely primarily on bill inserts and press releases to promote the audit program. MidAmerican also will target homebuyers by including promotional materials in welcome packages the company sends to new customers as part of a broader promotional

campaign. MidAmerican also will train its call center associates to recommend use of the online or on-site audits as strategies for customers calling with high-bill concerns.

If necessary to spur demand, MidAmerican also will target direct mail marketing to likely participants, including customers living in homes built prior to Dec. 31, 1986, and customers with high heating or air conditioning bills.

The *Change A Light* campaign will be promoted through newspaper and magazine advertisements.

## 9. Participation

Table 2 provides program participation assumptions.

**Table 2**  
**Participation**

	2008	2009	2010
<b>Electric Measures</b>			
Audits (Electric Heat Homes)	1	1	1
Insulation (AC Homes)	12	15	15
Change-A-Light CFLs	1,088	1,088	1,088
<b>Natural Gas Measures</b>			
Audits (Gas Heat Homes)	823	823	823
Insulation (Gas Heat Homes)	454	567	567
Audits (Electric Heat Homes)	1	1	1

## 10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	78,017	156,524	235,031
Peak Demand (kW)	16	33	50
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	70,430	151,150	231,860
Peak-Day Demand (therms)	760	1,660	2,570

## 11. Budget

Table 4 provides program budget assumptions.



**Table 4**  
**Budget**

	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Electric Budget</b>			
Planning & Design	\$1,000	\$0	\$0
Administration	\$4,000	\$4,000	\$4,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$5,000	\$5,000	\$5,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	<b>\$10,000</b>	<b>\$9,000</b>	<b>\$9,000</b>
<b>Natural Gas Budget</b>			
Planning & Design	\$38,000	\$5,000	\$5,000
Administration	\$82,000	\$84,000	\$86,000
Advertising & Promotion	\$32,000	\$33,000	\$34,000
Customer Incentives	\$262,000	\$307,000	\$313,000
Monitoring & Evaluation	\$8,000	\$8,000	\$8,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Natural Gas Total</b>	<b>\$422,000</b>	<b>\$437,000</b>	<b>\$446,000</b>
<b>Total Budget</b>			
Planning & Design	\$39,000	\$5,000	\$5,000
Administration	\$86,000	\$88,000	\$90,000
Advertising & Promotion	\$32,000	\$33,000	\$34,000
Customer Incentives	\$267,000	\$312,000	\$318,000
Monitoring & Evaluation	\$8,000	\$8,000	\$8,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Total</b>	<b>\$432,000</b>	<b>\$446,000</b>	<b>\$455,000</b>

## 12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results**

Lifecycle Societal Benefits (NPV)	\$ 2,316,357
Lifecycle Societal Costs (NPV)	\$ 1,529,381
Net Societal Benefits (NPV)	\$ 786,976
Benefit-Cost Ratio	1.51

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# **Residential Load Management Program**

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## **1. Program Description**

The Residential Load Management program provides financial incentives to residential customers in exchange for allowing MidAmerican to control their central air conditioning on hot summer days when the company is experiencing a system peak demand or when operational conditions require use of the program. The program is promoted under the service mark SummerSaver<sup>SM</sup>. MidAmerican will implement the program in South Dakota beginning in 2009.

## **2. Operations**

Participants agree to allow MidAmerican to control their equipment during the four summer months (June to September). MidAmerican installs a load control receiver (LCR) on participants' houses near their outside disconnect switches and air-conditioning compressors. MidAmerican activates the LCRs through a network of pager and FM radio signals (although in South Dakota, all customers will be enrolled in the pager network). LCRs operate by overriding customers' thermostats, shutting down the outdoor compressor, but allowing the indoor furnace fan to continue circulating previously cooled indoor air.

MidAmerican cycles equipment using a 50 percent strategy; that is, compressors are allowed to run in a pattern of 15-minutes on and 15-minutes off during the cycling period. MidAmerican's cycling periods run from 2 to 7 p.m., with randomized programming to minimize impacts on local distribution systems. Actual start time can vary between 2 and 2:30 p.m., with corresponding end times between 7 and 7:30 p.m.

Cycling events have typically occurred up to 15 times per year, although there is no contractual limitation on the number of annual events. The average number of events per year in recent history is eight.

The program is delivered by energy-efficiency staff and an administrative program contractor. Energy-efficiency staff set incentive levels, develop marketing materials and coordinate communication among the internal and external staff involved in the program. The program contractor manages customer enrollment and mailings, maintains a network of LCR installers, answers customer questions using a dedicated toll-free phone line, tracks program data, operates program software and hardware systems, and helps coordinate incentives with MidAmerican's billing and accounts payable departments.

Key steps in program participation include:

- Soliciting new program participants through direct mailings to targeted customers,
- Enrolling new participants,
- Coordinating installation of LCRs,
- Managing cycling events during the summer season,
- Servicing and maintaining installed LCRs,
- Processing incentive bill credits through the billing system,
- Informing participants about program operations through targeted mailings and the company Web site,
- Processing customers leaving the program, including removing LCRs (if necessary) and paying partial credits via check and
- Sending targeted mailings to current participants that move into new homes and also to customers moving into homes of previous participants.



### 3. Value Proposition

Customers participating in this program receive:

- ***Financial benefits*** in the form of annual incentive payments that reward them for participation.
- ***Surety*** in the form of clear rules specifying cycling conditions, cycling end-times and other program procedures.
- ***Information*** in a variety of forms, including program brochures, Web site program information and enrollment materials.

### 4. Customer Targets

All South Dakota residential electric customers that live in owner-occupied, single-family homes and that have central air-conditioning are eligible for the program. Certain models of central air conditioners are not compatible with the technology of the program and therefore cannot participate. Also, customers with geothermal heat pumps are not eligible for the program.

In mailings soliciting new participants MidAmerican targets the following customers:

- Customers with significant summer electricity purchases indicating air conditioning,
- Customers moving into homes previously enrolled in the program and
- Customers previously enrolled in the program moving to new homes in MidAmerican's service territory.

Table 1 outlines customer eligibility requirements.

**Table 1**  
**Customer Eligibility Parameters**

	Electric Customers
<b>Customer Class</b>	Residential rates
<b>Customer Status</b>	Homeowners
<b>Building Type</b>	Single-family; Owner-occupied
<b>Building Vintage</b>	All ages
<b>Geography</b>	All South Dakota customers
<b>Equipment Required</b>	Must have central air-conditioner or air-source heat pump

## **5. Trade Ally Targets**

MidAmerican's program contractor maintains a network of electrical contractors responsible for installing and removing LCRs on customers' homes. In addition, trade allies providing HVAC maintenance services and those selling HVAC equipment also can influence customers' decisions to participate in the program.

## **6. Eligible Measures**

Beyond the control and communications hardware owned and maintained by MidAmerican, there are no additional measures involved in this program. To participate in the program, customers must have a working central air conditioner or air-source heat pump. An outside disconnect switch located near the compressor also is required. If the customer does not have a disconnect switch, program electrical contractors will install one at no charge.

## **7. Financial Incentives**

The incentive strategy is to provide customers with an incentive that is high enough to encourage ongoing participation, but low enough to prevent spending more than is necessary to attain results. Incentives for full-season participants are paid by bill credit on the customer's utility bill at the completion of the cooling season.

In 2007, MidAmerican paid first-year participants a \$40 end-of-season bill credit and recurring participants a \$30 bill credit. Participants leaving the program prior to Sept. 30 received pro-rated incentives sent via checks. MidAmerican expects to pay similar incentives in the South Dakota program. However, MidAmerican performs an annual review of qualifying equipment and reserves the right to adjust rebate levels in the future as market conditions change.

## **8. Promotion**

This program relies primarily on direct mailings to recruit and retain program participants. MidAmerican will send a targeted mailing to customers with summer electric usage high enough to indicate cooling equipment. The mailing will explain the program features and benefits and provide customers with simple actions to take to enroll in the program.

Once the program has recruited its initial participants, additional mailings will be sent to maintain and increase participation levels.

- All participants receive a *Don't Forget* brochure in the spring reminding them about the program and providing them with review of program operations as well as a toll-free phone number for any program questions.
- A *Welcome Home* card is sent to customers that move into a home with an LCR already installed. The card will inform the new customers that they are automatically enrolled in the program unless they indicate otherwise.
- A *Welcome Back* card is sent to past program participants that move into new MidAmerican electric homes in order to recruit them to join the program in their new homes.

Education will largely be accomplished through the company Web site, which will post extensive information about the program, including general information for recruiting new

participants as well as specific operational information (e.g., status of control days) to help existing participants.

## 9. Participation

Table 2 provides program participation assumptions.

**Table 2**  
**Participation**

	2008	2009	2010
<b>Electric Measures</b>			
LCRs Installed (cumulative)	-	127	210

## 10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	-	1,983	3,242
Peak Demand (kW)	-	108	176

## 11. Budget

Table 4 provides program budget assumptions.

**Table 4**  
**Budget**

	2008	2009	2010
<b>Electric Budget</b>			
Planning & Design	\$0	\$0	\$0
Administration	\$0	\$2,000	\$2,000
Advertising & Promotion	\$0	\$5,000	\$6,000
Customer Incentives	\$0	\$5,000	\$7,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$15,000	\$10,000
Installation	\$0	\$9,000	\$6,000
<b>Electric Total</b>	<b>\$0</b>	<b>\$36,000</b>	<b>\$31,000</b>

## 12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results\***

Lifecycle Societal Benefits (NPV)	\$ 96,480
Lifecycle Societal Costs (NPV)	\$ 82,729
Net Societal Benefits (NPV)	\$ 13,751
Benefit-Cost Ratio	1.17

\*Includes lifecycle cost and benefits of new participants added from 2009-11, to allow programs to reach full participation.



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## **Residential New Construction Program**

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### **1. Program Description**

This program promotes the construction of energy-efficient new housing, addressing both the building shell and the equipment used inside the building. The program provides builders with financial incentives to offset the higher cost of energy-efficiency construction and equipment. In addition, the program provides home owners with energy-efficient new homes certificates, which are recognized by the real estate community as evidence that the buildings are highly energy efficient.

The program is delivered through a program contractor, supported by a trade ally network of home builders and building inspectors. The program is marketed as the Residential New Homes program. MidAmerican will implement the program in South Dakota beginning in 2010.

### **2. Operations**

The program has two tracks for certification: an EnergyAdvantage<sup>®</sup> track defined by MidAmerican and an ENERGY STAR<sup>®</sup> track tied to the U.S. Environmental Protection Agency ENERGY STAR program. Builders choosing the EnergyAdvantage track follow a prescriptive builder option package (BOP) of specific energy-efficient shell and equipment measures. Builders choosing the ENERGY STAR track work within the framework of the nationally accredited Home Energy Rating System (HERS) to receive a qualifying HERS rating.

This program is delivered principally through key developers and building contractors. Rebates are provided directly to builders, so they are responsible for filling out program applications. Many builders pass rebates along to home buyers in the form of lower home purchase costs.

Builders also are responsible for promoting the program, using the New Homes certification and other MidAmerican support to help differentiate energy-efficient homes in the broader housing market. Builders also work with home buyers to understand the features and benefits of high-efficiency construction and equipment.

Key steps in program participation include:

- Meeting program specifications, by following the prescriptive builder option package for the EnergyAdvantage track or the HERS rating process for the ENERGY STAR track,
- Filling out program applications,
- Working with MidAmerican to verify compliance with program specifications, by using MidAmerican's verification contractor for the EnergyAdvantage track or by gaining HERS certification for the ENERGY STAR track,
- Providing home buyers with MidAmerican New Homes certification and
- Processing rebate checks, which are provided to the home builder.

The program contractor provides a range of support functions to manage the program, including processing applications, tracking program data, answering questions from builders and equipment subcontractors, certifying EnergyAdvantage participants and coordinating rebate distribution with MidAmerican's accounts payable department.

MidAmerican staff and additional contractors also provide additional support in the form of research and development into new measures, promotion and monitoring and evaluation.

### **3. Value Proposition**

Customers participating in this program receive the following benefits:

- A *comprehensive construction incentive* to reduce the cost and payback of energy-efficiency measures installed by the owner or developer,

- ***Lower monthly energy bills*** due to the higher level of energy efficiency in the home. On average, compared to standard new housing, although usage is very much occupant-driven, MidAmerican's EnergyAdvantage and ENERGY STAR participants will likely use 15 to 25 percent less energy,
- The ***potentially higher resale value*** of the home due to MidAmerican energy-efficient certification and higher-quality home construction and heating/cooling equipment,
- ***MidAmerican energy-efficient home certification*** and endorsement of measures installed through this program. All MidAmerican energy-efficient homes are certified to meet MidAmerican's strict guidelines for energy efficiency,
- ***Independent verification*** by MidAmerican that selected measures were installed by the subcontractor,
- ***Assurance*** that the builder is building a higher quality energy-efficient home and
- ***Increased comfort*** due to the energy-efficient features of the prescribed measures that keep out excessive heat, cold and noise and ensure consistent temperatures between and across rooms, making the homes more comfortable.

#### 4. Customer Targets

This program targets developers and future owners of residential homes. The program has been designed to accommodate different building types, including single-family homes, town homes, multifamily apartment buildings and manufactured homes, as well as different development approaches including production developers, custom developers and speculative developers.

Table 1 outlines customer eligibility requirements.

**Table 1**  
**Customer Eligibility Parameters**

	<b>Electric Comprehensive Homes</b>	<b>Gas Comprehensive Homes</b>
<b>Customer Class</b>	Customers served under all residential electric rates are eligible for electric measures	Customers served under natural gas residential rates are eligible for natural gas measures
<b>Customer Status</b>	Homeowners and developers	Homeowners and developers
<b>Building Type</b>	Single-family homes (conventional and custom); Town homes (slab on grade construction); Manufactured homes; Multi-family homes	Single-family homes (conventional and custom); Town homes (slab on grade construction); Manufactured homes; Multi-family homes
<b>Building Vintage</b>	New construction	New construction
<b>Geography</b>	Installed in MidAmerican South Dakota electric territory	Installed in MidAmerican South Dakota gas territory

## 5. Trade Ally Targets

The single-family and town home components rely primarily on the following trade allies for program delivery:

- Home builders,
- Home energy raters,
- Real estate firms and
- Real estate developers.

The builder's role is to construct the home to comply with MidAmerican's prescriptive BOP requirements or to meet the HERS requirements. Some builders have been proactive in this market, building only MidAmerican energy-efficient homes. The role of real estate firms is to educate and convince home purchasers of the additional value and benefits created by MidAmerican energy-efficient home certification, such as reduced energy bills, increased comfort and higher property values. Real estate developers build subdivisions of single-family homes and town home developments that comply with MidAmerican's program requirements.



Builders also work with additional subcontractors responsible for installing the shell measures (e.g., insulation, windows) and equipment measures (e.g., air conditioners, furnaces, water heaters, lighting) required to meet program requirements.

The manufactured home component relies on modular home manufacturers for program delivery. They support the program in two ways: (1) producing manufactured homes to comply with MidAmerican energy-efficient manufactured home requirements; and (2) educating customers on the added benefits and value of a MidAmerican energy-efficient certified manufactured home over a conventional manufactured home.

## **6. Eligible Measures**

Attachment B4-1 provides a copy of the brochure MidAmerican uses to promote its 2007 Iowa Residential New Construction program. The brochure defines the measures required to meet MidAmerican's prescriptive BOP for EnergyAdvantage certification in the Iowa program. Measures covered in the BOP address insulation, ducts, windows, doors, infiltration, HVAC equipment, water heat equipment and appliances. Builders choosing the ENERGY STAR track address similar building systems, equipment and measures, but are allowed to make trade offs among systems (for example, installing more wall insulation but less attic insulation).

MidAmerican expects the BOP and HERS requirements for the South Dakota program to address measures similar to those listed in Attachment B4-1. MidAmerican will work with builders and public officials to ensure that South Dakota requirements reflect local market conditions, especially the existing building code in Minnehaha County. MidAmerican also performs an annual review of qualifying equipment to ensure that program requirements evolve to meet changing market conditions.

## **7. Financial Incentives**

The program offers lump-sum financial incentives upon successful completion of construction and verification by MidAmerican. Incentives are paid on a per-home basis, payable upon successful completion and verification that the home construction complies with program requirements. Incentives vary based on whether MidAmerican provides utility service for the heating system, cooling system or both systems. In addition, there is a separate incentive structure for customers installing geothermal heat pumps.

MidAmerican expects the financial incentives for the South Dakota program to be similar to those provided in Attachment B4-1. However, to the extent that program eligibility requirements need to change to match local market conditions, financial incentives also may need to change. In addition, MidAmerican performs an annual review of qualifying equipment so that rebate levels can evolve to meet changing market conditions.

## **8. Promotion**

This program will rely on direct contacts with builders and developers to promote the program, including direct mailings, personal visits and attendance at home shows and other industry events. MidAmerican will develop a brochure that outlines the program's features, benefits, eligibility requirements and financial incentives, and send copies to builders and other targeted trade allies. In addition, MidAmerican will highlight the program in bill inserts provided to all residential customers and conduct limited newspaper and Internet advertising.

## **9. Participation**

Table 2 provides program participation assumptions.

**Table 2  
Participation**

	2008	2009	2010
<b>Electric Measures</b>			
Electric Heat Homes	-	-	-
AC Homes	-	-	2
<b>Natural Gas Measures</b>			
Gas Heat Homes	-	-	76

## 10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3  
Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	-	-	3,617
Peak Demand (kW)	-	-	5
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	-	-	34,370
Peak-Day Demand (therms)	-	-	520

## 11. Budget

Table 4 provides program budget assumptions.

**Table 4**  
**Budget**

	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Electric Budget</b>			
Planning & Design	\$0	\$0	\$0
Administration	\$0	\$0	\$1,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$0	\$0	\$1,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	\$0	\$0	\$2,000
<b>Natural Gas Budget</b>			
Planning & Design	\$0	\$0	\$7,000
Administration	\$0	\$0	\$38,000
Advertising & Promotion	\$0	\$0	\$18,000
Customer Incentives	\$0	\$0	\$97,000
Monitoring & Evaluation	\$0	\$0	\$4,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Natural Gas Total</b>	\$0	\$0	\$164,000
<b>Total Budget</b>			
Planning & Design	\$0	\$0	\$7,000
Administration	\$0	\$0	\$39,000
Advertising & Promotion	\$0	\$0	\$18,000
Customer Incentives	\$0	\$0	\$98,000
Monitoring & Evaluation	\$0	\$0	\$4,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Total</b>	\$0	\$0	\$166,000

## 12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results\***

Lifecycle Societal Benefits (NPV)	\$ 1,838,164
Lifecycle Societal Costs (NPV)	\$ 1,539,465
Net Societal Benefits (NPV)	\$ 298,699
Benefit-Cost Ratio	1.19

\*Includes lifecycle cost and benefits of participation from 2010-12, to allow programs to reach full participation.

Attachment B4-1

2007 Iowa

Residential New Construction Rebate Schedule





## 2007 ENERGY ADVANTAGE® NEW HOMES PROGRAM

Feature	Equipment	2007 MidAmerican BOP
Cooling	<b>Right-sized</b>	<b>Properly sized, recommend using ACCA Manual J or equivalent calculation</b>
	Electric, forced-air, central air conditioners	14 SEER or greater
	Electric, forced-air, air-source heat pumps	14 SEER or greater
	Electric, ground-source heat pumps (closed loop)	14.1 EER or greater
	Electric, ground-source heat pumps (open loop)	16.2 EER or greater
Heating	<b>Right-sized</b>	<b>Properly sized, recommend using ACCA Manual J or equivalent calculation</b>
	Natural gas, forced-air furnace	92 AFUE or greater
	Natural gas, boiler	90 AFUE or greater
	Electric, forced-air, air-source heat pumps	8.5 HSPF or greater
	Electric, ground-source heat pumps (closed loop)	3.3 COP or greater
	Electric, ground-source heat pumps (open loop)	3.6 COP or greater
Thermostat	Clock programmable thermostat	Setback with two or more temperature settings
Ductwork	Sheetmetal ducts	R-8 or greater insulation in unconditioned spaces
	Sheetmetal joints	Duct sealing at each joint using mastic and/or UL 181 approved tapes, such as metal-backed tape
	All low-pressure supply and return ducts	Duct sealing at each joint using mastic and/or UL 181 approved tapes, such as metal-backed tape
Infiltration	Leakage	6% or less to unconditioned spaces
	Natural air exchanges per hour (NACH)	0.45 or less NACH
	Mechanical ventilation	Strongly recommended if NACH is 0.31 or less
Insulation	Heat-recovery ventilator (HRV)	Optional
	Ceiling, insulation only	R-49 or greater
	Wood frame wall	R-19 or greater, or R-13 + 5
	Mass frame wall	R-15
	Floor, above unheated space	R-30 or greater
	Basement wall, insulation covering entire basement walls	R-10/13 or greater, basement does not need to be finished
	Basement, band/rim joist	R-19 or greater
Windows	Slab	R-10 or greater under edge, back 4 feet
	Crawl space	R-10 or greater - R-13 or greater cavity
	ENERGY STAR-qualified windows or better for the northern climate zone	.35 U-factor or less
Doors	Windows rated by the National Fenestration Rating Council (NFRC)	Must have NFRC window stickers
	Maximum window area	18% or less of conditioned floor area
Water Heaters		R-5 or greater
	Natural gas, up to 60 gallons	0.62 EF or greater
	Natural gas, 60 - 80 gallons	0.85 thermal efficiency or greater
ENERGY STAR® Products	Electric	0.93 EF or greater
	ENERGY STAR-qualified appliances, hardwired light fixtures, ceiling fans equipped with lighting fixtures, and/or ventilation fans (not including heating and cooling or windows)	Must have five installed ENERGY STAR-fixtures or appliances and supply documentation for each.

Questions? Please call 800-894-9599.

SEE REVERSE SIDE FOR INCENTIVES.

## 2007 ENERGYADVANTAGE® NEW HOMES PROGRAM REBATE LEVELS

**Builders have two options to qualify for EnergyAdvantage rebates.**

### Option 1 - EnergyAdvantage New Homes Program Specifications

This program option is available to new, unoccupied single-family homes in the Iowa service areas of MidAmerican Energy using energy provided directly by MidAmerican. For multifamily units, please call in advance for specifications.

**Builder must meet all requirements on reverse side, with no exceptions.**

<u>EnergyAdvantage Home</u>	<u>Rebate</u>
MidAmerican gas and electric	\$ 1,500
MidAmerican gas heat only	\$ 1,000
MidAmerican cooling only	\$ 500
Ground-source heat pump homes	\$ 1,000 plus additional rebate per the 2007 Residential Equipment rebate schedule

Rebate amounts will be prorated for homes less than 1,800 sf.

**Program eligibility expires for homes not verified by March 31, 2008. After this time homes must meet 2008 New Homes specifications.**

### Option 2 - ENERGY STAR®-Labeled Home

This program option is available to new, single-family homes in the Iowa service areas of MidAmerican Energy using energy provided directly by MidAmerican. For multifamily units, please call in advance for specifications.

**Builder must provide certification from a RESNET-certified HERS rater showing the home meets or exceeds ENERGY STAR standards.**

Specifications are available at [www.energystar.gov](http://www.energystar.gov).

<u>ENERGY STAR-Labeled Home</u>	<u>Rebate</u>
MidAmerican gas and electric	\$ 1,750
MidAmerican gas heat only	\$ 1,250
MidAmerican cooling only	\$ 500
Ground-source heat pump homes	\$ 1,000 plus additional rebate per the 2007 Residential Equipment rebate schedule

Rebate amounts will be prorated for homes less than 1,800 sf.

Questions? Please call 800-894-9599.  
[www.midamericanenergy.com/newhomes](http://www.midamericanenergy.com/newhomes)

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## **Residential Low-Income Program**

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### **1. Program Description**

This program encourages comprehensive energy-efficiency improvements in existing low-income housing. The program provides funding to the South Dakota Department of Human Services (DHS) to supplement its existing efforts delivering the federally funded Weatherization Assistance Program (WAP). MidAmerican will implement the program in South Dakota beginning in 2008.

### **2. Program Operations**

The program will work through DHS's existing network of community action program (CAP) agencies, which qualify households and deliver services. MidAmerican will work with DHS and the agencies to define energy-efficiency measures to be qualified and installed through the program. The agencies will provide free energy audits to identify appropriate measures as well as free on-site installation of the measures themselves. Measures will address building shell, water heating and lighting.

Key steps the CAP agencies will take to manage program participation include:

- Promoting the program,
- Qualifying customers for participation,
- Identifying appropriate cost-effective energy-efficiency measures,
- Administering and managing the installation of qualifying measures,
- Providing program data to the company within the applicable timeframe and
- Cooperating with program evaluation efforts.

### **3. Value Proposition**

Customers participating in the low-income program receive the following main benefits.

- They receive *immediate savings* through the direct installation of low-cost lighting and water heating measures.
- They receive *significant savings, increased comfort* and *increased housing values* through building shell improvements.
- They receive *trustworthy energy-efficiency advice* from agencies that have no vested interest in selling the customer any specific products.

#### **4. Customer Targets**

To participate in the program, households must satisfy the following criteria:

- Qualify for income and other guidelines of South Dakota's WAP,
- Receive primary heating fuel from the company and
- Reside in South Dakota.

#### **5. Trade Ally Targets**

Beyond the CAP agencies and their equipment suppliers, there are no additional trade allies supporting this program.

#### **6. Eligible Measures**

MidAmerican will work with the CAP agencies to define a set of cost-effective energy-efficiency measures to include in the program. At this point, MidAmerican expects measures to include insulation, compact fluorescent lamps and water heat measures (low-flow showerheads, faucet aerators, and pipe and tank insulation).

#### **7. Financial Incentives**

Table 1 outlines the schedule that MidAmerican uses in its Iowa program to reimburse CAP agencies for qualified measures. MidAmerican will work with DHS and the CAP agencies

to develop a similar schedule for the South Dakota program. However, MidAmerican performs an annual review of qualifying equipment and rebate levels and reserves the right to adjust measures and reimbursement levels in the future as market conditions change.

MidAmerican's intent is to cover 100 percent of the costs required to install eligible measures and also to cover the administrative costs required by DHS and the agencies to operate the program. MidAmerican will require reporting and documentation of weatherized homes so that energy savings can be tracked and recorded.

**Table 1:**  
**Iowa Reimbursement Limits for Low-Income Measures**

<b>Measure</b>	<b>Minimum Efficiency Level and Performance Criteria (if applicable)</b>	<b>Reimbursement Limit</b>
Low-Flow Showerheads	2.5 GPM	\$10
Faucet Aerators	1.5 GPM Brass with Chrome Finish	\$3
Pipe Insulation	Rigid 0.5" foam with 0.75" diameter	\$3
Compact Fluorescent Light Bulbs	5 to 30 watts ENERGY STAR®-labeled	\$7 each
Circleline Compact Fluorescent Lights	30 watts ENERGY STAR-labeled	\$10 each
Insulation Measures	Includes wall, attic, floor or foundation, and bandjoist insulation or a combination thereof*	\$2,500

\*CAPs may request a waiver when home size requires additional insulation to achieve the required goal.

## 8. Participation

Table 2 provides program participation assumptions.

**Table 2**  
**Participation**

	<b>2008</b>	<b>2009</b>	<b>2010</b>
Total Households	49	76	76
<b>Electric Measures</b>			
Electric Customers*	2	3	3
<b>Natural Gas Measures</b>			
Gas Customers	49	76	76

\*Electric customers are expected to have gas heat, but electric cooling, lighting and appliances.



## 9. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	1,150	2,876	4,601
Peak Demand (kW)	1	1	2
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	7,780	19,760	31,740
Peak-Day Demand (therms)	110	270	440

## 10. Budget

Table 4 provides program budget assumptions.

**Table 4**  
**Budget**

	2008	2009	2010
<b>Electric Budget</b>			
Planning & Design	\$0	\$0	\$0
Administration	\$0	\$0	\$0
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$2,000	\$3,000	\$3,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	<b>\$2,000</b>	<b>\$3,000</b>	<b>\$3,000</b>
<b>Natural Gas Budget</b>			
Planning & Design	\$14,000	\$2,000	\$2,000
Administration	\$14,000	\$20,000	\$20,000
Advertising & Promotion	\$4,000	\$4,000	\$4,000
Customer Incentives	\$41,000	\$65,000	\$66,000
Monitoring & Evaluation	\$1,000	\$1,000	\$1,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Natural Gas Total</b>	<b>\$74,000</b>	<b>\$92,000</b>	<b>\$93,000</b>
<b>Total Budget</b>			
Planning & Design	\$14,000	\$2,000	\$2,000
Administration	\$14,000	\$20,000	\$20,000
Advertising & Promotion	\$4,000	\$4,000	\$4,000
Customer Incentives	\$43,000	\$68,000	\$69,000
Monitoring & Evaluation	\$1,000	\$1,000	\$1,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Total</b>	<b>\$76,000</b>	<b>\$95,000</b>	<b>\$96,000</b>

## 11. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results**

Lifecycle Societal Benefits (NPV)	\$ 361,445
Lifecycle Societal Costs (NPV)	\$ 252,938
Net Societal Benefits (NPV)	\$ 108,507
Benefit-Cost Ratio	1.43

## **Nonresidential Equipment Program**

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### **1. Program Description**

This program promotes the purchase of individual pieces of predefined high-efficiency equipment by commercial and industrial customers in both existing and new facilities. This program targets replacement and first-time purchases, but also is available to customers making retrofit installations. Participation is largely dealer-driven; that is, equipment dealers are the agents that up-sell customers to energy-efficient measures when they are in the market to buy new equipment.

MidAmerican promotes the program to both dealers and customers using four separate sales brochures: Heating and Cooling Equipment program, Lighting Equipment program, Motors and Variable-Speed Drives program and Commercial Kitchen Equipment program. MidAmerican will implement the program in South Dakota beginning in 2008.

### **2. Operations**

This program relies primarily on the equipment dealers that sell nonresidential heating, ventilation, air conditioning (HVAC) equipment, lighting, motors, drives and commercial kitchen equipment to deliver the program to MidAmerican customers. The dealers promote the program, help customers understand the features and benefits of high-efficiency equipment, help customers select high-efficiency equipment and help customers fill out program applications. Customers are welcome to participate in the program on their own, but most dealers are well versed in the program and happy to help customers navigate the application process.

The program is fairly streamlined. Key steps in program participation include:

- Ensuring that equipment meets program qualifications,

- Completing the program application,
- Processing rebate checks for qualified equipment and
- Verifying equipment installation for a sample of participants.

The program also employs a program contractor to provide a range of support functions, including processing applications, tracking program data, answering questions from dealers and customers, verifying equipment installations and coordinating rebate distribution with MidAmerican's accounts payable department. A second program contractor also provides additional verification services.

### **3. Value Proposition**

Customers participating in the program receive three main benefits.

- They *save money* in the short term through rebates and in the long term through lower utility bills.
- They *improve their business* by providing a more comfortable, productive environment.
- They *contribute* by reducing energy use, its associated environmental impact and the need to build new power plants.

### **4. Customer Targets**

This program targets nonresidential customers as well as building owners and property managers representing nonresidential facilities. The current program targets customers replacing existing equipment but also is available to customers:

- Purchasing equipment for the first time,
- Retrofitting functioning systems to upgrade to higher efficiency and
- Building new facilities, but who are not interested in participating in the comprehensive new construction program.

The program will be available throughout MidAmerican's South Dakota service territory. However, electric equipment must be installed in buildings for which MidAmerican directly supplies the electricity and natural gas equipment must be installed in buildings for which MidAmerican directly supplies the natural gas. Transportation gas customers with daily metering are ineligible for prescriptive gas measures; customers with monthly metering (which covers most schools using transportation tariffs) are eligible.

Table 1 outlines customer eligibility requirements.

**Table 1**  
**Customer Eligibility Parameters**

	<b>Electric Equipment</b>	<b>Gas Equipment</b>
<b>Customer Class</b>	Nonresidential electric rates	Nonresidential gas rates; Gas transportation customers with daily metering are ineligible
<b>Customer Status</b>	Customer building or business owners; Landlords of customers	Customer building or business owners; Landlords of customers
<b>Business Type</b>	All	All
<b>Building Type</b>	All	All
<b>Building Vintage</b>	Existing and new construction	Existing and new construction
<b>Geography</b>	Installed in MidAmerican South Dakota electric territory	Installed in MidAmerican South Dakota gas territory
<b>Size</b>	All	All

## 5. Trade Ally Targets

Any business that sells or installs qualifying equipment within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- Lighting dealers,
- HVAC and plumbing contractors,
- Mechanical contractors,
- Electrical contractors,
- Motor and variable-speed drive dealers,



- Boiler and water heater suppliers and
- Commercial kitchen equipment suppliers.

## **6. Eligible Measures**

The program covers a wide range of electric and natural gas equipment. Attachments C1-1 through C1-4 provide the four rebate schedules used for this program in MidAmerican's 2007 Iowa Nonresidential Equipment program. MidAmerican expects the equipment in the South Dakota Nonresidential Equipment program to follow these schedules. However, MidAmerican performs an annual review of qualifying equipment and reserves the right to adjust measures and eligibility requirements in the future as market conditions change.

## **7. Financial Incentives**

The program provides rebates to program participants installing qualifying equipment. Rebates are defined in units appropriate to each measure. Most rebates are defined per device, but others are defined per unit of equipment size (e.g., per Btu of heating capacity for large boilers). For some equipment, rebates also increase with increasing equipment efficiency. Attachments C1-1 through C1-4 show the rebates that are offered in MidAmerican's 2007 Iowa Nonresidential Equipment program. MidAmerican expects rebates in the South Dakota Nonresidential Equipment program to follow these schedules. However, MidAmerican performs an annual review of qualifying equipment and their associated rebate levels and reserves the right to adjust rebates and measures in the future, as market conditions change.

## **8. Promotion**

This program will rely primarily on point-of-sale dealer information to promote the program. MidAmerican will develop a brochure that outlines the program's features, benefits, eligibility requirements and financial incentives and send copies to targeted trade allies. In

addition, MidAmerican will highlight the program on its Web site, in customer newsletters provided to all nonresidential customers and will utilize limited newspaper and Internet advertising.

## 9. Participation

Table 2 provides program participation assumptions.

**Table 2**  
**Participation**

	2008	2009	2010
<b>Electric Measures*</b>			
<i><b>HVAC</b></i>			
Air Conditioners/Heat Pumps	4	4	6
Thermostats	4	5	6
<i><b>Lighting</b></i>			
T-8/T-5 Fluorescent Fixtures	202	250	302
CFL Lamps/Fixtures	68	84	101
Metal Halide Lamps/Fixtures	7	9	11
Traffic Light Fixtures	17	22	26
Other			
<i><b>Motors</b></i>			
Efficient Motors	2	2	3
Adjustable-Speed Drives	2	2	3
<b>Natural Gas Measures*</b>			
Furnaces	76	95	114
Boilers	7	9	11
Water Heaters	3	3	4
Thermostats	28	35	42

\*Based on Iowa experience, these are the measures most likely to occur in South Dakota. Other measures are eligible and also are likely to occur in South Dakota.

## 10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	377,989	804,334	1,373,493
Peak Demand (kW)	48	106	177
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	19,790	44,690	74,720
Peak-Day Demand (therms)	440	1,000	1,670

## 11. Budget

Table 4 provides program budget assumptions.

**Table 4**  
**Budget**

	2008	2009	2010
<b>Electric Budget</b>			
Planning & Design	\$7,000	\$0	\$0
Administration	\$3,000	\$3,000	\$3,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$17,000	\$20,000	\$27,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	<b>\$27,000</b>	<b>\$23,000</b>	<b>\$30,000</b>
<b>Natural Gas Budget</b>			
Planning & Design	\$26,000	\$1,000	\$1,000
Administration	\$9,000	\$9,000	\$9,000
Advertising & Promotion	\$2,000	\$2,000	\$2,000
Customer Incentives	\$27,000	\$35,000	\$43,000
Monitoring & Evaluation	\$1,000	\$1,000	\$1,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Natural Gas Total</b>	<b>\$65,000</b>	<b>\$48,000</b>	<b>\$56,000</b>
<b>Total Budget</b>			
Planning & Design	\$33,000	\$1,000	\$1,000
Administration	\$12,000	\$12,000	\$12,000
Advertising & Promotion	\$2,000	\$2,000	\$2,000
Customer Incentives	\$44,000	\$55,000	\$70,000
Monitoring & Evaluation	\$1,000	\$1,000	\$1,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Total</b>	<b>\$92,000</b>	<b>\$71,000</b>	<b>\$86,000</b>

## 12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results**

Lifecycle Societal Benefits (NPV)	\$ 1,318,814
Lifecycle Societal Costs (NPV)	\$ 540,177
Net Societal Benefits (NPV)	\$ 778,637
Benefit-Cost Ratio	2.44

Attachment C1-1

2007 Iowa

Nonresidential Equipment Rebate Schedule

HVAC Measures



## 2007 ELIGIBLE HEATING AND COOLING EQUIPMENT (NONRESIDENTIAL)

EQUIPMENT TYPE	EQUIPMENT CODE	MINIMUM COOLING EFFICIENCY <sup>1</sup>	MINIMUM HEATING EFFICIENCY <sup>1</sup>	REBATES
<b>Air Conditioners</b>				
Air-Cooled				
<65 MBtuh – Single Phase	010	14.0 SEER		$\$200 + (\$100 \times (\text{SEER} - 14.0))$ Maximum rebate \$400
<65 MBtuh – Three Phase	244	13.0 SEER		$\$100 + (\$100 \times (\text{SEER} - 13.0))$ Maximum rebate \$400
≥ 65 and <135 MBtuh	011	10.4 EER		$(\$50 \times (\text{EER} - 10.3)) \times \text{tons}$
≥ 135 and < 240 MBtuh	011	9.8 EER		$(\$50 \times (\text{EER} - 9.7)) \times \text{tons}$
≥ 240 and < 760 MBtuh	011	9.6 EER		$(\$50 \times (\text{EER} - 9.5)) \times \text{tons}$
≥ 760 MBtuh	011	9.3 EER		$(\$50 \times (\text{EER} - 9.2)) \times \text{tons}$
Water-Cooled				
<65 MBtuh	003	12.6 EER		$(\$50 \times (\text{EER} - 12.5)) \times \text{tons}$
≥ 65 and <135 MBtuh	003	12.1 EER		$(\$50 \times (\text{EER} - 12.0)) \times \text{tons}$
≥ 135 MBtuh	003	11.6 EER		$(\$50 \times (\text{EER} - 11.5)) \times \text{tons}$
<b>Package Terminal Air Conditioners</b>	112	10.5 EER		\$50 per unit
<b>Heat Pumps</b>				
Air-Source				
<65 MBtuh – Single Phase	198	14.0 SEER	8.5 HSPF	$\$400 + (\$100 \times (\text{SEER} - 14.0))$ Maximum rebate \$600
	398	14.0 SEER	<8.5 HSPF	$\$200 + (\$100 \times (\text{SEER} - 14.0))$ Maximum rebate \$400
<65 MBtuh – Three Phase	245	13.0 SEER	7.5 HSPF	$\$300 + (\$100 \times (\text{SEER} - 13.0))$ Maximum rebate \$600
≥ 65 and <135 MBtuh	099	10.2 EER	3.2 COP <sup>2</sup>	$(\$50 \times (\text{EER} - 10.1)) \times \text{tons}$
≥ 135 and < 240 MBtuh	099	9.4 EER	3.1 COP	$(\$50 \times (\text{EER} - 9.3)) \times \text{tons}$
≥ 240 MBtuh	099	9.1 EER	3.1 COP	$(\$50 \times (\text{EER} - 9.0)) \times \text{tons}$
Water-Source				
<17 MBtuh	220	11.3 EER	4.2 COP <sup>2</sup>	$(\$50 \times (\text{EER} - 11.2)) \times \text{tons}$
≥ 17 MBtuh	220	12.1 EER	4.2 COP	$(\$50 \times (\text{EER} - 12.0)) \times \text{tons}$
Ground-Source (Geothermal)				
<135 MBtuh				
12 EER/3.0 COP	032	12.0 EER	3.0 COP <sup>2</sup>	\$300 per heating ton plus \$300 per ton ground loop <sup>3</sup>
High-Efficiency Bonuses		14.1 EER	3.4 COP	Add \$150 for EER ≥ 14.1 Add \$150 for COP ≥ 3.4
≥ 135 MBtuh	See Nonresidential Custom Systems Program			
Desuperheater	019	NA	NA	\$100 per unit
<b>Package Terminal Heat Pumps</b>	126	10.5 EER	3.0 COP <sup>2</sup>	\$50 per unit
<b>Chillers</b>				
Air-Cooled, w/condenser	015	<1.25 kW/ton		$((\$400 \times (1.25 - \text{kW/ton})) + \$10) \times \text{tons}$
Water-Cooled				
<150 tons	055	<0.70 kW/ton		$((\$400 \times (0.70 - \text{kW/ton})) + \$10) \times \text{tons}$
≥ 150 and <300 tons	055	<0.63 kW/ton		$((\$400 \times (0.63 - \text{kW/ton})) + \$10) \times \text{tons}$
≥ 300 tons	055	<0.58 kW/ton		$((\$400 \times (0.58 - \text{kW/ton})) + \$10) \times \text{tons}$
<b>Furnaces (Natural Gas)</b>				
<225 MBtuh	040		92 AFUE	$\$250 + (\$25 \times (\text{AFUE} - 92))$ Maximum rebate \$350
≥ 225 MBtuh	See Nonresidential Custom Systems Program			
<b>Boilers (Natural Gas)</b>				
<300 MBtuh				
85-89.9 AFUE	038		85 AFUE	\$100 per unit
≥ 90 AFUE	038		90 AFUE	$\$200 + (\$50 \times (\text{AFUE} - 90))$ Maximum rebate \$400
≥ 300 and ≤ 2,500 MBtuh	006		82 Thermal Efficiency	$(\$0.80 + (\$0.20 \times (\text{TE} - 82))) \times \text{MBtuh}$
>2,500 MBtuh	See Nonresidential Custom Systems Program			
<b>Water Heaters (Natural Gas)</b>				
≤ 75 MBtuh				
≤ 30 gallons	205		0.64 EF	\$50 per unit
>30 gallons and ≤ 60 gallons	205		0.62 EF	\$50 per unit
>60 gallons	205		0.59 EF	\$50 per unit
>75 MBtuh	096		85 Thermal Efficiency	$(\$0.80 + (\$0.20 \times (\text{TE} - 85))) \times \text{MBtuh}$
<b>Programmable Thermostats</b>	See application	Must have two or more temperature settings		\$30 per unit

<sup>1</sup> Equipment efficiencies to be rated at full load according to test procedures and conditions specified in ASHRAE Standard 90.1.

<sup>2</sup> COP rated at 47° F dry bulb.

<sup>3</sup> New ground loop installation only. Maximum rebated loop size determined by the rated heating capacity of installed unit.

EF – Energy Factor

For all energy-efficient equipment not listed above, please see **2007 Nonresidential Custom Systems Program** brochure.

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Attachment C1-2

2007 Iowa

Nonresidential Equipment Rebate Schedule

Lighting Measures

## 2007 LIGHTING EQUIPMENT INFORMATION

### Eligible Lighting Equipment

EQUIPMENT TYPE	FIXTURE SIZE	# OF LAMPS	LAMP TYPE	REBATE AMOUNTS
Fluorescent U-bend T-8 fixtures; <b>for existing buildings only</b> (with electronic ballasts)	2 Foot	2	T-8 U-Bend	\$10/fixture
Fluorescent T-8 or T-5 fixtures; <b>for existing buildings only</b> (with electronic ballasts)	2 Foot	1	T-8 or T-5	\$10/fixture
		2	T-8 or T-5	\$10
	4 Foot	1	T-8 or T-5	\$6
		2	T-8 or T-5	\$8
		3	T-8 or T-5	\$12
		4	T-8 or T-5	\$16
	8 Foot	1	T-8	\$8
Fluorescent T-8 fixtures (with high output electronic ballasts)		2	T-8	\$10
	8 Foot	1 or 2	T-8 HO	\$10
Fluorescent T-8 and T-5 fixtures, high-bay* (with high output electronic ballasts)				
<b>For existing buildings</b>	4 Foot	3-6	T-8 or T-5 HO	\$12/lamp
<b>For new buildings</b>	4 Foot	3-6	T-8 or T-5 HO	\$6/lamp
Occupancy sensors	N/A	N/A	Wall-mount and ceiling-mount (must control > 400 watts)	\$20 each
Occupancy sensors, high-bay	N/A	N/A	Fixture-mount (must control > 150 watts)	\$20 each
Pulse start metal halide fixtures	≥320 watts	1	Pulse start metal halide	\$15/fixture
360 watt metal halide lamps	N/A	1	For reduced wattage replacements only	\$3/lamp
Compact fluorescent lamps (self-ballast/screw-in)	N/A	1	9 watts and up	\$2/lamp
Compact fluorescent fixtures (hard-wired)	N/A	Any	Hard-wired	\$10/fixture
LED exit sign (existing buildings only)	N/A	2	LED	\$5/sign
LED traffic lighting retrofit	N/A	N/A	Red 12" Red 8" Green 12" Green 8" Green Arrow Don't Walk 12" Don't Walk 8"	\$20 each \$15 \$60 \$40 \$30 \$25 \$20
Refrigerated case lighting fluorescent T-8 fixtures (with electronic ballasts)	Any	Any	T-8	\$10/fixture

\* Requires dealer/customer to complete Supplemental Information form and submit ballast cut sheet. Forms available at [www.midamericanenergy.com/lighting](http://www.midamericanenergy.com/lighting).

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Attachment C1-3

2007 Iowa

Nonresidential Equipment Rebate Schedule

Efficient Motor Measures

## MOTOR INCENTIVES AVAILABLE (THREE PHASE ONLY)

### NEMA PREMIUM – TEFC MOTORS

HORSE POWER	SPEED in RPM	NOMINAL EFFICIENCY	INCENTIVES AVAILABLE
1	3600	77.0%	\$25
	1800	85.5%	\$35
	1200	82.5%	\$35
1.5	3600	84.0%	\$25
	1800	86.5%	\$45
	1200	87.5%	\$45
2	3600	85.5%	\$35
	1800	86.5%	\$50
	1200	88.5%	\$40
3	3600	86.5%	\$35
	1800	89.5%	\$50
	1200	89.5%	\$65
5	3600	88.5%	\$45
	1800	89.5%	\$55
	1200	89.5%	\$90
7.5	3600	89.5%	\$70
	1800	91.7%	\$65
	1200	91.0%	\$135
10	3600	90.2%	\$70
	1800	91.7%	\$80
	1200	91.0%	\$160
15	3600	91.0%	\$155
	1800	92.4%	\$80
	1200	91.7%	\$185
20	3600	91.0%	\$125
	1800	93.0%	\$120
	1200	91.7%	\$260
25	3600	91.7%	\$200
	1800	93.6%	\$170
	1200	93.0%	\$240
30	3600	91.7%	\$200
	1800	93.6%	\$200
	1200	93.0%	\$255
40	3600	92.4%	\$210
	1800	94.1%	\$220
	1200	94.1%	\$385
50	3600	93.0%	\$310
	1800	94.5%	\$300
	1200	94.1%	\$425
60	3600	93.6%	\$310
	1800	95.0%	\$385
	1200	94.5%	\$450
75	3600	93.6%	\$385
	1800	95.4%	\$520
	1200	94.5%	\$575
100	3600	94.1%	\$695
	1800	95.4%	\$645
	1200	95.0%	\$1,000
125	3600	95.0%	\$475
	1800	95.4%	\$700
	1200	95.0%	\$625
150	3600	95.0%	\$600
	1800	95.8%	\$675
	1200	95.8%	\$900
200	3600	95.4%	\$700
	1800	96.2%	\$725
	1200	95.8%	\$1,275

### NEMA PREMIUM – OPEN DRIP PROOF

HORSE POWER	SPEED in RPM	NOMINAL EFFICIENCY	INCENTIVES AVAILABLE
1	3600	77.0%	\$15
	1800	85.5%	\$25
	1200	82.5%	\$20
1.5	3600	84.0%	\$30
	1800	86.5%	\$25
	1200	86.5%	\$30
2	3600	85.5%	\$25
	1800	86.5%	\$25
	1200	87.5%	\$35
3	3600	85.5%	\$25
	1800	89.5%	\$30
	1200	88.5%	\$45
5	3600	86.5%	\$30
	1800	89.5%	\$40
	1200	89.5%	\$40
7.5	3600	88.5%	\$60
	1800	91.0%	\$70
	1200	91.2%	\$175
10	3600	89.5%	\$45
	1800	91.7%	\$100
	1200	91.7%	\$190
15	3600	90.2%	\$90
	1800	93.0%	\$140
	1200	91.7%	\$195
20	3600	91.0%	\$95
	1800	93.0%	\$115
	1200	92.4%	\$195
25	3600	91.7%	\$125
	1800	93.6%	\$125
	1200	93.0%	\$120
30	3600	91.7%	\$140
	1800	94.1%	\$125
	1200	93.6%	\$120
40	3600	92.4%	\$120
	1800	94.1%	\$175
	1200	94.1%	\$190
50	3600	93.0%	\$115
	1800	94.5%	\$105
	1200	94.1%	\$190
60	3600	93.6%	\$125
	1800	95.0%	\$205
	1200	94.5%	\$225
75	3600	93.6%	\$390
	1800	95.0%	\$255
	1200	94.5%	\$225
100	3600	93.6%	\$390
	1800	95.4%	\$360
	1200	95.0%	\$315
125	3600	94.1%	\$355
	1800	95.4%	\$400
	1200	95.0%	\$375
150	3600	94.1%	\$265
	1800	95.8%	\$250
	1200	95.4%	\$500
200	3600	95.0%	\$500
	1800	95.8%	\$430
	1200	95.4%	\$785

For motors > 200 HP, please use the Nonresidential Custom Systems program.



**800-894-9599**

[www.MIDAMERICANENERGY.com/ee](http://www.MIDAMERICANENERGY.com/ee)



Attachment C1-4

2007 Iowa

Nonresidential Equipment Rebate Schedule

Commercial Kitchen Measures

## 2007 ELIGIBLE COMMERCIAL KITCHEN EQUIPMENT

EQUIPMENT TYPE/SIZE/CAPACITY	EQUIPMENT CODE	MINIMUM QUALIFYING EFFICIENCY	REBATES
<b>Ice Makers</b>			
<b>Air-Cooled</b>			
<b>Ice-Making Head</b>			
< 450 lbs. ice per day <sup>1</sup>	361	≤ 10.26 - 0.0086H kWh/100 lbs. ice <sup>2</sup>	\$100
≥ 450 lbs. ice per day	361	≤ 6.89 - 0.0011H kWh/100 lbs. ice	\$100
<b>Remote Condensing</b>			
< 1,000 lbs. ice per day <sup>1</sup>	362	≤ 8.85 - 0.0038H kWh/100 lbs. ice <sup>2</sup>	\$100
≥ 1,000 lbs. ice per day	362	≤ 5.10 kWh/100 lbs. ice	\$100
<b>Self-Contained</b>			
< 175 lbs. ice per day <sup>1</sup>	363	≤ 18.0 - 0.0469H kWh/100 lbs. ice <sup>2</sup>	\$100
≥ 175 lbs. ice per day	363	≤ 9.80 kWh/100 lbs. ice	\$100
<b>Water-Cooled</b>			
<b>Ice-Making Head</b>			
< 500 lbs. ice per day <sup>1</sup>	364	≤ 7.80 - 0.0055H kWh/100 lbs. ice <sup>2</sup>	\$100
≥ 500 lbs. ice per day	364	≤ 5.58 - 0.0011H kWh/100 lbs. ice	\$100
≥ 1,436 lbs. ice per day	364	≤ 4.00 kWh/100 lbs. ice	\$100
<b>Self-Contained</b>			
< 200 lbs. ice per day <sup>1</sup>	365	≤ 11.40 - 0.0190H kWh/100 lbs. ice <sup>2</sup>	\$100
≥ 200 lbs. ice per day	365	≤ 7.60 kWh/100 lbs. ice	\$100
<b>Solid Door Refrigerators</b>			
< 19 cubic feet	374	ENERGY STAR <sup>®3</sup> ≤ [(0.10 x cu. ft.) + 2.04] kWh/day <sup>3</sup>	\$100
19 - 30 cubic feet	374	≤ [(0.10 x cu. ft.) + 2.04] kWh/day	\$125
31 - 60 cubic feet	374	≤ [(0.10 x cu. ft.) + 2.04] kWh/day	\$150
61 - 90 cubic feet	374	≤ [(0.10 x cu. ft.) + 2.04] kWh/day	\$200
<b>Glass Door Refrigerators</b>			
< 19 cubic feet	375	CEE Tier 1 <sup>2</sup> ≤ [(0.12 x cu. ft.) + 3.34] kWh/day <sup>3</sup>	\$125
19 - 30 cubic feet	375	≤ [(0.12 x cu. ft.) + 3.34] kWh/day	\$150
31 - 60 cubic feet	375	≤ [(0.12 x cu. ft.) + 3.34] kWh/day	\$175
61 - 90 cubic feet	375	≤ [(0.12 x cu. ft.) + 3.34] kWh/day	\$225
<b>Solid Door Freezers</b>			
< 19 cubic feet	376	ENERGY STAR <sup>3</sup> ≤ [(0.4 x cu. ft.) + 1.38] kWh/day <sup>3</sup>	\$50
19 - 30 cubic feet	376	≤ [(0.4 x cu. ft.) + 1.38] kWh/day	\$75
31 - 60 cubic feet	376	≤ [(0.4 x cu. ft.) + 1.38] kWh/day	\$100
61 - 90 cubic feet	376	≤ [(0.4 x cu. ft.) + 1.38] kWh/day	\$125
<b>Hot Food Holding Cabinets</b>			
Any size	377	ENERGY STAR <sup>3</sup> ≤ 40 watts/cubic foot	\$250

<sup>1</sup> Ice harvest rate

<sup>2</sup> Based on Consortium for Energy Efficiency (CEE) Tier 1 qualifying efficiency levels; for more information on qualifying equipment, visit [www.cee1.org](http://www.cee1.org).

<sup>3</sup> For more information on qualifying equipment, visit the ENERGY STAR Web site, [www.energystar.gov/index.cfm?c=commercial\\_food\\_service.commercial\\_food\\_service](http://www.energystar.gov/index.cfm?c=commercial_food_service.commercial_food_service).

H = Ice harvest rate



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## Small Commercial Audit Program

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### 1. Program Description

This program encourages small business customers to adopt comprehensive energy-efficiency strategies by providing online energy audits, more extensive on-site energy audits, direct installation of low-cost measures and recommendations for additional measures. The program also provides financial incentives that are more generous than those offered under the less comprehensive Nonresidential Equipment and Nonresidential Custom programs. In addition, the program covers the nonresidential portion of the multifamily buildings addressed by the Residential Audit program (i.e., covering master-metered apartments as well as common areas and building systems served on nonresidential tariffs). The program is marketed under the service mark BusinessCheck<sup>SM</sup>. MidAmerican will implement the program in South Dakota beginning in 2008.

### 2. Operations

The program is delivered through two program contractors: one more experienced with energy systems installed in large buildings and more complex business operations and another more experienced with smaller buildings. The contractors provide a range of services, including:

- No-cost audits that provide comprehensive analyses of buildings and equipment systems as well as free, immediate installation of low-cost measures such as compact fluorescent lamps, LED exit lights, water heater efficiency measures and simple controls,
- Recommendations for energy-efficiency projects appropriate for small businesses, focusing primarily on lighting and insulation projects and

- Verification, on a sampling basis, of the installation of lighting and insulation measures installed by customers.

In addition, one of the program contractors also performs administrative functions such as program enrollment, data tracking and coordination of rebate distribution with MidAmerican's accounts payable department.

Where appropriate, the program also coordinates with the multifamily component of the Residential Audit program. MidAmerican serves multifamily buildings in a unified, comprehensive manner, addressing measures for central building systems such as insulation, windows, heating and cooling systems and common-area lighting, as well as measures appropriate to individual living units such as compact fluorescent lamps and individual heating and cooling systems. MidAmerican tracks the program efforts for individually-metered apartments (residential tariffs) through the residential program, and efforts for master-metered units and common areas (nonresidential tariffs) through the nonresidential program.

The program also offers an online energy audit tool to give customers an opportunity to evaluate their own energy usage and opportunities for efficiency improvements. Customers using the online tool also can request an on-site audit by completing a simple Web form.

### **3. Value Proposition**

Customers participating in the program receive these four main benefits:

- *Trustworthy energy-savings advice from trained auditors and through an online audit,*
- *Immediate savings* through the direct installation of low-cost lighting, water heating and other energy-saving measures,
- *Significant savings, increased comfort and increased property values* through insulation, lighting and additional efficiency projects and

- **Convenience** by reliance on the program contractor to schedule audits fitting their schedule, ongoing reminders to ensure follow-through on savings recommendations and quality control over efficiency installations.

#### 4. Customer Targets

This program targets small commercial customers (owners and tenants) in existing commercial buildings. Transportation gas customers with daily metering are ineligible for prescriptive gas measures; customers with monthly metering (which covers most schools using transportation tariffs) are eligible. The program uses building size (generally, less than 25,000 square feet) and tariff (those used by smaller business customers) to target and qualify customers. However the program manager also uses discretion to determine whether this or other programs would better serve customer needs. Table 1 outlines customer eligibility requirements.

**Table 1**  
**Customer Eligibility Parameters**

	<b>On-Site Audit</b>	<b>Direct Installation Measures</b>	<b>Project Rebates</b>
<b>Customer Class</b>	Nonresidential rates serving smaller customers; MidAmerican must provide heating fuel	Nonresidential rates serving smaller customers; MidAmerican must provide fuel saved by measure	Nonresidential tariff rates serving smaller customers; MidAmerican must provide fuel saved by measure
<b>Customer Status</b>	Building owners; Landlords; Tenants	Building owners; Landlords; Tenants	Building owners; Landlords; Tenants
<b>Building Type</b>	All	All	All
<b>Business Type</b>	All	All	All
<b>Building Vintage</b>	Existing buildings	Existing buildings	Existing buildings
<b>Geography</b>	South Dakota	South Dakota	South Dakota
<b>Size</b>	Less than 25,000 sq. ft.	Less than 25,000 sq. ft.	Less than 25,000 sq. ft.
<b>Other</b>	N/A	N/A	Pre-qualified during on-site audit

## 5. Trade Ally Targets

Key trade allies for this program include the contractors that deliver the follow-up projects identified during the audit (predominantly lighting and insulation contractors).

## 6. Eligible Measures

All energy-saving measures potentially are eligible for the program. Typical measures installed during the audit include compact fluorescent lamps, LED exit signs, occupancy sensors, programmable thermostats, water heater tank and pipe insulation, low-flow plumbing fixtures, vending machine controls and high-pressure rinse sprayers. Additional projects typically include insulation, T-8 and T-5 lighting systems, lighting controls, daylighting, custom task lighting, windows, efficient heating, ventilation and air conditioning (HVAC) equipment, HVAC controls, commercial kitchen equipment, efficient refrigeration systems and energy management systems.

## 7. Financial Incentives

To encourage customers to participate in the program and invest in the comprehensive solutions recommended by the auditors in this difficult-to-reach segment, the program provides financial incentives that are larger than those available for the less comprehensive Equipment and Custom programs.

Two types of incentives are offered through this program.

- **Full subsidies** are offered for the audit itself as well as the low-cost measures directly installed during the audit. The strategy is to provide a source of immediate savings and to fully overcome market barriers concerning split incentives (i.e., landlords own the buildings but tenants pay utility bills), cost and perceived quality.
- **Rebates** are offered for the more extensive projects identified during the audit, including insulation, lighting and other measures. Rebates up to 70 percent of the installed cost of

high-efficiency fluorescent lighting and upgraded insulation are offered to participants.

Other efficiency projects are paid with incentives consistent with the Nonresidential Equipment and Nonresidential Custom programs.

MidAmerican performs an annual review of qualifying equipment and reserves the right to adjust measures and rebate levels in the future as market conditions change.

## **8. Promotion**

The promotional strategy for this program focuses on direct mailing to target likely participants. The ideal customers for this program are those who are:

- Motivated to reduce energy use,
- Aware of the benefits of upgrading to energy-efficient measures,
- In older buildings with T-12 lighting and no ceiling or roof insulation,
- Using electricity a large number of hours per year,
- In buildings with intensive energy usage and
- Building owners (especially those with multiple buildings).

While it is difficult to capture these features in a direct mailing, the following types of customers will be targeted:

- Energy-intensive business segments, such as restaurants and smaller grocery stores,
- Smaller local chains with local or regional ownership and decision-making,
- Businesses in which the financial decision-maker is able to be present at the audit and
- Businesses with cost-effective energy-efficiency opportunities.

In addition, MidAmerican will highlight the program in customer newsletters provided to all South Dakota nonresidential customers and conduct limited newspaper and Internet advertising.

## 9. Participation

Table 2 provides program participation assumptions.

**Table 2**  
**Participation**

	2008	2009	2010
<b>Electric Measures*</b>			
Audits (Electric Heat Customers)	2	2	4
Direct-Install Measures (Electric)	30	35	57
Follow-Up Measures (Electric)	19	22	33
<b>Natural Gas Measures</b>			
Audits (Gas Heat Customers)	61	73	122
Direct-Install Measures (Gas)	418	498	828
Follow-Up Measures (Gas)	31	36	59

\*Some electric measures come from audits of gas-heat customers.

## 10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	10,612	22,031	37,564
Peak Demand (kW)	3	7	11
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	15,680	33,760	63,890
Peak-Day Demand (therms)	310	680	1,280

## 11. Budget

Table 4 provides program budget assumptions.



**Table 4**  
**Budget**

	2008	2009	2010
<b>Electric Budget</b>			
Planning & Design	\$2,000	\$0	\$0
Administration	\$2,000	\$1,000	\$1,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$3,000	\$3,000	\$4,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	<b>\$7,000</b>	<b>\$4,000</b>	<b>\$5,000</b>
<b>Natural Gas Budget</b>			
Planning & Design	\$59,000	\$2,000	\$2,000
Administration	\$27,000	\$27,000	\$28,000
Advertising & Promotion	\$9,000	\$9,000	\$9,000
Customer Incentives	\$46,000	\$55,000	\$95,000
Monitoring & Evaluation	\$7,000	\$7,000	\$8,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Natural Gas Total</b>	<b>\$148,000</b>	<b>\$100,000</b>	<b>\$142,000</b>
<b>Total Budget</b>			
Planning & Design	\$61,000	\$2,000	\$2,000
Administration	\$29,000	\$28,000	\$29,000
Advertising & Promotion	\$9,000	\$9,000	\$9,000
Customer Incentives	\$49,000	\$58,000	\$99,000
Monitoring & Evaluation	\$7,000	\$7,000	\$8,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Total</b>	<b>\$155,000</b>	<b>\$104,000</b>	<b>\$147,000</b>

## 12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results**

Lifecycle Societal Benefits (NPV)	\$ 655,663
Lifecycle Societal Costs (NPV)	\$ 547,181
Net Societal Benefits (NPV)	\$ 108,482
Benefit-Cost Ratio	1.20

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## **Nonresidential Load Management Program**

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### **1. Program Description**

This program provides large customers with financial incentives to reduce demand during MidAmerican's system peak hours. Customers use one of three strategies to reduce demand when MidAmerican calls a curtailment event: they shed load, shift load to non-peak periods or generate replacement power with on-site generators. Customers use MidAmerican's Curtailment Manager software system to help them and MidAmerican monitor load levels in near-real time during curtailment events. Customers also receive ongoing support to help them with program compliance from their assigned energy consultant (i.e., key account manager).

The program is marketed to customers as the Curtailment program. MidAmerican will implement the program in South Dakota beginning in 2009.

### **2. Operations**

The program is delivered through MidAmerican's energy efficiency and energy consultant staff. Key steps in program participation include:

- Signing the program contract, which describes the rights and responsibilities of customers and MidAmerican in program operations as defined by the curtailment tariff rider.

Qualifying customers are offered year-to-year contracts.

- Installing necessary hardware and software systems. At a minimum, customers must have electric meters that can record interval data, as well as communication lines (telephone or internet TCP/IP) to transmit the interval data to MidAmerican. Participants also are encouraged to use the Curtailment Manager software for monitoring of curtailment performance in near-real time during curtailment events. Customers also may choose to

install additional systems to help their facilities meet their curtailment requirements (e.g., generators, control systems). Along with Curtailment Manager, MidAmerican also makes available additional software modules that can help customers track and manage energy consumption and costs throughout the year.

- Testing program operations, if possible, during a mock curtailment event that MidAmerican operates each year prior to the curtailment season (which runs from June 1 through Sept. 30).
- Meeting program requirements during curtailment events called during the curtailment season. MidAmerican is required to provide at least 30 minutes notice of each event if a warning has been issued at least 12 hours prior to the event. If a warning was not issued, MidAmerican must provide at least two hours notice. MidAmerican's electric trading group initiates the curtailment event, which is then communicated by energy efficiency to customers via the curtailment manager software as well as through personal communications from energy consultants.
- Reconciling program performance after the curtailment season, calculating incentives and delivering curtailment checks to customers. Customers that do not fully meet their contract requirements may be penalized by MidAmerican (per the tariff rider) and/or removed from the program.

### **3. Value Proposition**

Customers participating in this program receive three main benefits:

- ***Financial benefits*** in the form of incentive payments that compensate the customer for reducing load during MidAmerican's system peak hours,

- ***Surety*** in the form of clear tariff requirements specifying notice requirements, number of curtailments and other program procedures and
- ***Information*** in a variety of formats, including advice from energy consultants on different curtailment strategies, analyses of interval load data and ongoing communication from energy consultants providing notification on curtailment days.

#### **4. Customer Targets**

MidAmerican will develop a curtailment service rider to its large electric tariffs that will define eligibility, limits and notice requirements for the program. Target customers include:

- Customers with a minimum of 250 kW of curtailable load,
- Customers with on-site generation already installed for emergency purposes,
- Industrial customers who can shed or shift process activities during system peak hours,
- Customers with energy management systems or other controls that allow them to shift or shed load during system peak hours,
- Customers in manufacturing or warehousing, hospitals, government entities, large offices and data/call centers,
- Customers with consistent load patterns throughout the summer period and
- Sophisticated customers with on-site energy managers.

Initially, in order to manage program participation, associated rate impacts and operational issues associated with this program, MidAmerican will cap program participation at 3 MW of contracted curtailable load. This is approximately twice the amount of load expected based on a detailed review of South Dakota customers. However, participation is highly uncertain. If additional customer interest develops for this program, MidAmerican will work with customers and its internal operations staff to adjust the cap appropriately.

Table 1 outlines customer eligibility requirements.

**Table 1**  
**Customer Eligibility Parameters**

	<b>Electric Equipment</b>
<b>Customer Class</b>	Nonresidential electric rates serving larger customers
<b>Customer Status</b>	Customer building or business owners
<b>Building Type</b>	All
<b>Business Type</b>	All
<b>Building Vintage</b>	Existing and new construction
<b>Geography</b>	South Dakota electric territory
<b>Size</b>	Able to provide at least 250 kW in curtailment

MidAmerican performs periodic reviews of its curtailment program and reserves the right to adjust program requirements in the future as market conditions change. Since the program operates through a tariff rider, any program changes would need to be approved by the South Dakota Public Utilities Commission in formal proceedings.

## **5. Trade Ally Targets**

For the most part, this program is delivered through MidAmerican's internal staff. However, trade allies providing services and equipment that enable customer participation can also be helpful in identifying potential new participants. These include:

- Firms that sell, specify or service emergency generators and
- Firms that sell, specify or service energy management systems.

## **6. Eligible Measures**

In this program, MidAmerican does not promote specific measures, but instead rewards strategies that customers choose to implement to reduce load during system peak hours. The curtailment strategies used by customers include shedding load, shifting load to non-peak periods and generating with on-site generators. The most common technologies used to enable



participation include emergency generators, energy management systems and other control systems.

## **7. Financial Incentives**

MidAmerican offers customers financial incentives in return for program participation. Customer incentives are defined on the basis of dollars per contract kilowatt of reduced demand.

Attachment C3-1 provides the draft Curtailment Service Rider that MidAmerican proposes for South Dakota, including program terms, conditions and incentives. MidAmerican also performs periodic reviews of its curtailment program and reserves the right to adjust program requirements and incentives in the future as market conditions change. Since the program operates through a tariff rider, any program changes would need to be approved by the South Dakota Public Utilities Commission in formal proceedings.

## **8. Promotion**

The promotional strategy for this program relies primarily on one-on-one marketing with prospective customers by energy consultants. MidAmerican provides the following materials to support the energy consultant marketing efforts:

- A program brochure that clearly explains the program's general terms, including program requirements, financial incentives and program compliance,
- Case studies of successful curtailment strategies used by existing customers and
- A program-specific Web page on MidAmerican's energy-efficiency site.

## **9. Participation**

Table 2 provides program participation assumptions.

**Table 2**  
**Participation**

	2008	2009	2010
<b>Electric Measures</b>			
Customers (Cumulative)	-	2	2
Contract kW (at Meter)	-	1,500	1,500

## 10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	-	39,449	39,449
Peak Demand (kW)	-	1,445	1,445

## 11. Budget

Table 4 provides program budget assumptions.

**Table 4**  
**Budget**

	2008	2009	2010
<b>Electric Budget</b>			
Planning & Design	\$0	\$2,000	\$2,000
Administration	\$0	\$8,000	\$8,000
Advertising & Promotion	\$0	\$3,000	\$3,000
Customer Incentives	\$0	\$51,000	\$51,000
Monitoring & Evaluation	\$0	\$7,000	\$7,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	<b>\$0</b>	<b>\$71,000</b>	<b>\$71,000</b>

## 12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results\***

Lifecycle Societal Benefits (NPV)	\$ 1,328,199
Lifecycle Societal Costs (NPV)	\$ 517,392
Net Societal Benefits (NPV)	\$ 810,807
Benefit-Cost Ratio	2.57

\*Includes lifecycle cost and benefits of new participants added from 2009-11, to allow programs to reach full participation.

Attachment C3-1

2007 Iowa

Nonresidential Load Management Program



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. 1  
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Section No. 3  
Original Sheet No. D-48

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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service**

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**APPLICABLE:**

At the option of the customer under General Service and Large General Service Price Schedules who demonstrates a continuing ability and willingness to curtail 250 kW or more during Company-specified curtailment periods. Usage measured by more than one meter at multiple locations may not be combined for purposes of qualifying for service under this rider. The customer is subject to the applicable terms and conditions of the Company's Electric Service Policies.

**CHARACTER:**

Alternating current; 60 Hz; single or three phase nominal voltages offered by the Company, as further described in the Company's Electric Service Policies.

**NET MONTHLY RATE:**

Charges for service hereunder will be at the prices specified in the price schedules to which this rider applies, subject to the following additions and modifications:

**Curtailment Credit:**

Annual Credit per kW of curtailable load to be offered:

\$32.93/kW (year-to-year contract)

N

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ELECTRIC TARIFF NO. 1  
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Section No. 3  
Original Sheet No. D-48a

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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

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If a customer's failure to curtail to the firm power level when requested results in a Company purchase of capacity, as required by the Mid-Continent Area Power Pool Agreement or superseding agreement with a Reliability Coordinator such as Midwest Reliability Organization, herein collectively referred to as MAPP, the customer will reimburse the Company for a proportionate share of this capacity. This amount will not exceed the customer's total annual credit for curtailable load.

In the event of a failure of the customer's standby generating equipment, or other unanticipated non-recurring condition (excluding the customer's failure to reduce production levels), the Company, at its sole discretion, may waive the customer's proportionate share of a capacity purchase as required by MAPP. The customer shall notify the Company immediately by telephone, e-mail, or facsimile after obtaining knowledge of a condition contemplated by this paragraph.

Any payment made to the Company for a customer's proportionate share of a capacity purchase as required by MAPP, or any waiver of such payment, shall not be construed as giving the customer the right to exceed the firm power level during any subsequent curtailment periods.

Customers may request a change in the firm power level annually. In addition, on 24 hours' notice, customers may cancel service under this rider. However, the customer will be responsible for its allocated share of any MAPP capacity purchases incurred prior to the effective time of the service cancellation and shall reimburse the Company for all credits received during the calendar year.

Customers shall notify the Company immediately upon obtaining knowledge of a need to increase its firm power level. If the requested increase in the firm power level is a result of an increase in the customer's expected load at time of system peak, the request will be automatically accommodated. If the requested increase in the firm power level is the result of the customer's desire to transfer load from its curtailable load to its firm power level, the Company will accommodate the request only if capacity is available.



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ELECTRIC TARIFF NO. 1  
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Section No. 3  
Original Sheet No. D-48b

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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

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For purposes of verifying the customer's curtailable load, the customer's expected load at time of system peak and firm power level will be reviewed annually by the Company. Participating customers are required to have access to MidAmerican's automated load management software system to facilitate performance verification. If the customer failed to curtail to the firm power level as required during either of the two prior summer seasons, the Company shall set the minimum firm power level at an amount equal to the customer's highest actual demand during a curtailment period in the two prior summer seasons.

During the customer's first summer period on this rider, the expected load at time of system peak and firm power level may be adjusted at the end of any billing period by mutual agreement of the Company and the customer.

**Tax Adjustment:**

The rate is subject to the Tax Adjustment Clause; see Sheet No. C-2.

**STANDBY GENERATOR PROVISION:**

Customers who have standby generation may operate that generation during the specified curtailment periods as a means of attaining the customer's specified firm power level. The standby generator must not be operated in parallel with Company generation. Standby generation is to be run only in emergencies, for testing, or during curtailment periods.





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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

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**CURTAILMENT PERIODS:**

The Company may establish a curtailment period by providing notice to the customer that curtailment is required, whenever at the Company's discretion such curtailment may be appropriate.

If a curtailment is to be ordered for the purpose of avoiding MAPP capacity purchases related to peak system loads, the Company may establish the curtailment period by giving a 30-minute notice to the customer, provided the customer was alerted to the possibility of curtailment 12 or more hours prior to the beginning of the curtailment period. Otherwise, the customer may require the Company to provide 2-hour notice for the purpose of avoiding MAPP capacity purchases. The curtailment period shall continue until the Company has provided specific notice of its termination, or a maximum of 6 hours, whichever is shorter. The maximum number of curtailment periods for the purpose of avoiding MAPP capacity purchases related to peak system loads (summer period only, June through September) during a calendar year will be 16.

If a curtailment is to be ordered because of operating conditions, the Company will endeavor to provide as much advance notice as practicable under the circumstances, but may establish the curtailment period immediately upon notice. In such a case, the curtailment would continue until notified by the Company.

The Company may randomly separate participants into curtailable groups of comparable net loads. The Company may establish a curtailment period that only affects one curtailable group, or multiple groups, on a given day. If only one curtailable group is curtailed, the Company will rotate between curtailable groups on subsequent curtailments.

Request for restriction of the customer's load to facilitate maintenance or replacement of equipment at or near the customer's premises shall not be deemed to establish a curtailment period.

**PARTICIPATION:**

The Company reserves the right to limit participation to a state-wide total of 3,000 kW of curtailable load.

**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

**DEFINITIONS:**

**Curtailment Service:** Electric service which includes a credit for those customers who agree, on notice from the Company, to reduce electric demand to a predetermined level (firm power level).

**Firm Power Level:** The level to which the customer has previously agreed to reduce usage during a curtailment period.

Expected Load at Time of System Peak: The load which would normally be placed on the Company's system by the customer at the time of system peak. The expected load will be established between the Company and customer based on load profiles, known load additions or deletions, and typical operations.

**Curtaileable Load:** Difference between the expected load at the time of system peak and the firm power level.

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# Commercial New Construction Program

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## 1. Program Description

This program promotes the design and construction of high-efficiency commercial buildings, serving customers undergoing new construction as well as major renovation of existing buildings. The program is delivered in partnership with key developers, architects, engineering firms and equipment contractors and provides separate delivery strategies targeting large and small buildings. The program provides a mix of technical and financial assistance to help reduce market barriers to energy efficiency. MidAmerican will implement the program in South Dakota beginning in 2010.

## 2. Operations

The program is delivered through the assistance of a program contractor, who provides energy design assistance, project management and verification. The contractor also helps MidAmerican strengthen relations with key trade allies. A second program contractor also assists with data tracking and rebate processing.

The program has slightly different tracks for large and small buildings, with larger buildings typically defined as those greater than 50,000 square feet in floor space. However, depending on the complexity of the building, the program manager may deviate from this strict size limit in specifying program services.

The program uses a similar process for both large and small buildings, although more detailed design and verification services are provided for larger building projects.

Key steps in program participation include:

- Program enrollment,

- Energy design assistance, through which the program contractor works with the design team to identify energy-efficiency strategies for the building project and then uses computer modeling to assess the costs and benefits of different bundles of combined strategies,
- Selection of preferred design strategies by the building developer/owner,
- Verification by the program contractor that the preferred design strategies are incorporated into construction documents and into actual building (including rerunning computer models to capture the costs and benefits of revised construction approaches) and
- Processing rebate checks which are provided directly to building owners.

### 3. Value Proposition

Buildings participating in the program receive three main benefits:

- ***Financial benefits*** in the form of:
  - Free energy design assistance,
  - Comprehensive construction incentives that reduce the payback period of selected energy-efficiency measures and
  - Lower monthly operating costs.
- ***Decision support*** in the form of:
  - High-quality information on the costs and benefits of energy-efficiency strategies potentially adaptable to the building and
  - Detailed design specifications for selected measures.
- ***Confidence*** in their final design decision due to
  - Owner/developer involvement in the measure selection and review process and

- Independent verification that selected measures are included in design specifications, construction documents and final installation.

#### **4. Customer Targets**

This program targets owners and developers of proposed new construction or renovation projects. Owners and developers who decide not to participate in the program still are eligible for energy-efficiency incentives through MidAmerican's other nonresidential programs.

The large building component targets buildings larger than 50,000 square feet such as schools, universities and large office buildings. The small building component targets buildings such as medical clinics, small offices, commercial strip malls, school additions and retail space.

This program is not designed to help industrial customers constructing new manufacturing facilities and processes. These customers would be served under the Nonresidential Custom program. However, industrial customers would be eligible for this program for new, non-process buildings (e.g., office buildings, non-process warehouses).

Transportation gas customers with daily metering would be ineligible for prescriptive gas measures; customers with monthly metering (which covers most schools using transportation tariffs) would be eligible.

Table 1 outlines customer eligibility requirements.

**Table 1**  
**Customer Eligibility Parameters**

	<b>Electric Equipment*</b>	<b>Gas Equipment*</b>
<b>Customer Class</b>	Nonresidential electric rates	Nonresidential gas rates; Gas transportation customers with daily metering are ineligible
<b>Customer Status</b>	Building owners and developers	Building owners and developers
<b>Building Type</b>	Commercial buildings (i.e., non-manufacturing)	Commercial buildings (i.e., non-manufacturing)
<b>Business Type</b>	All	All
<b>Building Vintage</b>	New construction	New construction
<b>Geography</b>	South Dakota	South Dakota
<b>Size</b>	Large: 50,000 sq. ft. or more in size Small: below 50,000 sq. ft. in size	Large: 50,000 sq. ft. or more in size Small: below 50,000 sq. ft. in size

\* Projects involving replacement of individual pieces of equipment are addressed through the Nonresidential Equipment and Nonresidential Custom programs.

## 5. Trade Ally Targets

The program relies primarily on the following trade allies for program delivery:

- Architect and engineering (A/E) firms,
- Developers,
- Construction firms/building contractors,
- Design-to-build contractors,
- Mechanical contractors and
- Equipment contractors, such as HVAC and electrical equipment.

## 6. Eligible Measures

All energy-efficiency measures that improve energy efficiency relative to South Dakota building standards codes are potentially eligible. MidAmerican expects to set baseline targets for most buildings using ASHRAE 90.1-1999, the current code for all state facilities built in South Dakota. However, in Minnehaha County, the baseline targets will be set relative to the local



code, which is IECC 2003. Typical measures include daylighting, lighting controls, custom task lighting, Low-E windows, increased wall and roof insulation, efficient heating and cooling equipment, efficient motors, variable-speed drives and building controls.

## **7. Financial Incentives**

The program offers financial incentives in three areas: design assistance, verification and comprehensive construction incentive. Design assistance and verification services are paid for by MidAmerican and come at no cost to the building owner/developer. In addition, a participation fee is paid to the design team used by the building owner/developer in order to compensate them for their additional costs of program participation. Participation fees are structured per square foot, to simplify administration for both MidAmerican and participating design firms.

Construction incentives are structured per unit of annual energy saved (e.g., \$/kWh and \$/therm) relative to the appropriate baseline. To encourage more comprehensive solutions, MidAmerican structures incentives to increase as annual savings increase. In 2007, Iowa incentives range from 5 to 14 cents per annual kilowatt-hour saved and from 40 cents to \$1.80 per annual therm saved. MidAmerican will work with builders and public officials to set South Dakota incentives at levels that reflect local market conditions, especially the existing building code in Minnehaha County. MidAmerican also performs an annual review of qualifying equipment to ensure that program incentives evolve to meet changing market conditions.

## **8. Promotion**

The promotional strategy for this program focuses on targeted trade allies through direct mail, magazine advertising and personal communication. Program-specific promotional materials and brochures will be mailed to interested parties, including owners, developers, architects, engineers, contractors and trade allies. Advertisements will be placed in appropriate

professional and trade journals and publications. Presentations will be made at trade shows and professional association meetings. Presentations also will be made to targeted customer segments, such as school and hospital administrators.

## 9. Participation

Table 2 provides program participation assumptions.

**Table 2**  
**Participation**

	2008	2009	2010
<b>Electric Buildings</b>			
<i>Large Buildings</i>			
Design Assistance	-	-	-
Completed Buildings	-	-	-
<i>Small Buildings</i>			
Design Assistance	-	-	-
Completed Buildings	-	-	-
<b>Natural Gas Buildings</b>			
<i>Large Buildings</i>			
Design Assistance	-	-	3
Completed Buildings	-	-	-
<i>Small Buildings</i>			
Design Assistance	-	-	-
Completed Buildings	-	-	-

## 10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	-	-	-
Peak Demand (kW)	-	-	-
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	-	-	-
Peak-Day Demand (therms)	-	-	-

## 11. Budget

Table 4 provides program budget assumptions.

**Table 4  
Budget**

	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Electric Budget</b>			
Planning & Design	\$0	\$0	\$0
Administration	\$0	\$0	\$7,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$0	\$0	\$0
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,000</b>
<b>Natural Gas Budget</b>			
Planning & Design	\$0	\$0	\$2,000
Administration	\$0	\$0	\$9,000
Advertising & Promotion	\$0	\$0	\$5,000
Customer Incentives	\$0	\$0	\$3,000
Monitoring & Evaluation	\$0	\$0	\$6,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Natural Gas Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$25,000</b>
<b>Total Budget</b>			
Planning & Design	\$0	\$0	\$2,000
Administration	\$0	\$0	\$16,000
Advertising & Promotion	\$0	\$0	\$5,000
Customer Incentives	\$0	\$0	\$3,000
Monitoring & Evaluation	\$0	\$0	\$6,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$32,000</b>

## 12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results\***

Lifecycle Societal Benefits (NPV)	\$ 269,925
Lifecycle Societal Costs (NPV)	\$ 125,469
Net Societal Benefits (NPV)	\$ 144,456
Benefit-Cost Ratio	2.15

\*Includes lifecycle cost and benefits of new participants added from 2010-12, to allow programs to reach full participation.

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## **Nonresidential Custom Program**

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### **1. Program Description**

This program provides a delivery channel for measures that do not fit neatly into MidAmerican's other nonresidential programs. It allows customers to receive financial incentives for individual equipment and systems that are not covered under the prescriptive rebate schedules in the Nonresidential Equipment program. While customers also can implement custom measures through the Small Commercial Energy Audit program and the Commercial New Construction program, the Custom program serves customers not interested in pursuing the comprehensive approaches of these other programs. The program is marketed as the Custom Systems program. MidAmerican will implement the program in South Dakota beginning in 2010.

### **2. Operations**

The program is generally customer-driven; that is, customers bring project ideas to MidAmerican and MidAmerican provides financial incentives for those projects that meet program guidelines. MidAmerican uses two program contractors to help deliver the program. One contractor works directly with customers to help them identify and flesh out project ideas and also to help MidAmerican develop accurate and complete data to evaluate project proposals. The second contractor is responsible for program administration, including processing applications, tracking program data and coordinating rebate distribution with MidAmerican's accounts payable department. Both contractors also help MidAmerican verify project installations.

Key steps in program participation include:



- Program enrollment, which involves filling out the program application to define project equipment, costs and energy savings,
- Technical assistance, where necessary, from the program contractor to help identify and define projects,
- Project qualification, which involves evaluating cost-effectiveness from a societal perspective (that is, MidAmerican provides incentive only to those projects that can conserve energy for less than it would cost MidAmerican to supply the project with electricity and natural gas),
- Rebate calculation which, subject to certain constraints, buys down the customer investment so that it pays back in annual savings over a period of one and one-half to two years (depending on customer type),
- Rebate processing, which involves coordination with MidAmerican's accounts payable department and
- Verification, where appropriate, that the project installation meets program guidelines.

### 3. Value Proposition

Customers participating in this program receive three main benefits:

- ***Flexibility*** to implement energy-efficiency measures not covered by MidAmerican's other programs,
- ***Financial benefits*** in the form of rebates that buy down the higher incremental costs of energy-efficiency strategies and provide ongoing utility bill savings throughout the life of the installed equipment and
- ***Confidence*** in their efficiency investment through MidAmerican's independent verification of customers' cost and benefit analyses used to estimate energy savings.

#### 4. Customer Targets

This program applies to all nonresidential customers in both new and existing buildings. Measures covered by the Nonresidential Equipment program are not eligible for the program. Transportation gas customers with daily metering are ineligible for prescriptive gas measures; customers with monthly metering (which covers most schools using transportation tariffs) are eligible.

While the program is, by definition, very broad, principal targets include:

- Large commercial and industrial customers served by energy consultants who can help them identify attractive project opportunities and
- Customers with equipment that lends itself to customized specifications (e.g., customers with compressed air or refrigeration systems).

Table 1 outlines customer eligibility requirements.

**Table 1**  
**Customer Eligibility Parameters**

	<b>Electric Equipment</b>	<b>Gas Equipment</b>
<b>Customer Class</b>	Nonresidential electric rates	Nonresidential gas rates; Gas transportation customers with daily metering are ineligible
<b>Customer Status</b>	Customer building or business owners; Landlords of customers	Customer building or business owners; Landlords of customers
<b>Building Type</b>	All	All
<b>Business Type</b>	All	All
<b>Building Vintage</b>	Existing and new construction	Existing and new construction
<b>Geography</b>	Installed in MidAmerican South Dakota electric territory	Installed in MidAmerican South Dakota natural gas territory
<b>Size</b>	All	All

#### 5. Trade Ally Targets

The program relies on a wide variety of trade allies for program delivery, including:

- Engineering firms qualified to specify custom-efficiency improvements,

- Companies qualified to specify and install windows, insulation and other building shell improvements,
- Companies qualified to specify and install energy management systems and other building controls and
- Lighting and mechanical contractors qualified to specify and install complex or very large systems not covered by the Nonresidential Equipment program.

## **6. Eligible Measures**

All energy-efficiency measures not covered by the Nonresidential Equipment program are potentially eligible for the program. The most common systems include:

- Low-E windows,
- Building insulation,
- Energy management systems and other building control systems,
- Complex lighting systems,
- Heat-recovery measures and
- Large boilers.

## **7. Financial Incentives**

In the Iowa program, MidAmerican provides financial incentives that buy down the customer payback to a period of two years for owner-occupied buildings and one and one-half years for tenant-occupied space. Rebates also are capped to encourage customers to concentrate on the most cost-effective measures. MidAmerican expects rebates in the South Dakota Nonresidential Custom program would follow the same approach. However, MidAmerican performs an annual review of rebate levels and reserves the right to adjust rebates in the future as market conditions change.

MidAmerican also requires pre-approval of custom projects in advance of customer purchase and installation. MidAmerican may waive the pre-approval requirement where customers can exhibit circumstances that make advance application impractical (e.g., an emergency equipment failure). MidAmerican may lower incentives for customers who do not receive pre-approval.

The program also may offer financial incentives for analysis support to customers installing measures that are new, unusual or otherwise in need of specialized energy analysis. In general, MidAmerican provides analysis support by directing the program contractor to perform analyses that are funded in whole or in part by MidAmerican. MidAmerican also may authorize and fund analyses by other qualified engineers or certified energy managers, including qualified customer staff.

## **8. Promotion**

The promotional strategy for this program is to leverage the promotion and delivery efforts of other programs. The program will be identified and described in general terms in MidAmerican's general promotional materials as well as materials developed for individual programs. In addition, program-specific materials will be developed and distributed to interested customers identified through other programs. Customers who do not qualify for other programs (or who are not able to follow through with the requirements of other programs) also will be steered to the program as an alternate delivery option.

MidAmerican also will promote the program through personal contacts for selected target markets. These include customers served by trade allies for common measures, the largest customers served by MidAmerican's staff of energy consultants and trade ally firms who specify and install custom measures.

## 9. Participation

Table 2 provides program participation assumptions.

**Table 2**  
**Participation**

	2008	2009	2010
<b>Electric Measures*</b>			
Low-E Windows (w/AC)	-	-	9
<b>Natural Gas Measures*</b>			
Large Boilers	-	-	2
Insulation (w/Gas Heat)	-	-	4
Low-E Windows (w/Gas Heat)	-	-	187
Building Controls	-	-	1
Heat Recovery	-	-	1

\*Based on Iowa experience, these are the measures most likely to occur in South Dakota. Other measures are eligible and also are likely to occur in South Dakota.

## 10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3**  
**Cumulative Energy and Demand Savings**

	2008	2009	2010
<b>Electric Impacts</b>			
Annual Energy (kWh)	-	-	948
Peak Demand (kW)	-	-	1
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	-	-	12,400
Peak-Day Demand (therms)	-	-	330

## 11. Budget

Table 4 provides program budget assumptions.

**Table 4**  
**Budget**

	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Electric Budget</b>			
Planning & Design	\$0	\$0	\$0
Administration	\$0	\$0	\$3,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$0	\$0	\$0
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,000</b>
<b>Natural Gas Budget</b>			
Planning & Design	\$0	\$0	\$1,000
Administration	\$0	\$0	\$18,000
Advertising & Promotion	\$0	\$0	\$6,000
Customer Incentives	\$0	\$0	\$21,000
Monitoring & Evaluation	\$0	\$0	\$6,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Natural Gas Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$52,000</b>
<b>Total Budget</b>			
Planning & Design	\$0	\$0	\$1,000
Administration	\$0	\$0	\$21,000
Advertising & Promotion	\$0	\$0	\$6,000
Customer Incentives	\$0	\$0	\$21,000
Monitoring & Evaluation	\$0	\$0	\$6,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$55,000</b>

## 12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5**  
**Cost-Effectiveness Results\***

Lifecycle Societal Benefits (NPV)	\$ 403,043
Lifecycle Societal Costs (NPV)	\$ 303,764
Net Societal Benefits (NPV)	\$ 99,279
Benefit-Cost Ratio	1.33

\*Includes lifecycle cost and benefits of new participants added from 2010-12, to allow programs to reach full participation.



# **Monitoring and Evaluation**

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## **1. Introduction**

This report describes MidAmerican's proposed monitoring and evaluation activities (M&E) for the plan period.

## **2. Objectives of Monitoring and Evaluation Activities**

MidAmerican's energy-efficiency monitoring and evaluation (M&E) activities have one primary objective: optimal program performance. Well-designed monitoring, verification and tracking functions provide comprehensive and timely data to program managers. Timely data allows them to monitor program performance and identify and correct problems related to achievement of program goals on a continuous basis. Process research and monitoring provides continuous and timely feedback that provides management the information needed to correct problems as they arise.

## **3. Evaluation Strategy**

At the highest level, MidAmerican's proposed evaluation plans and strategy are as follows.

- Process evaluations will be completed as needed as program designs, orientation and delivery change and as new programs are introduced. This will provide feedback on how well each program is performing relative to stated goals.
- Impact evaluation activities will provide information on how much actual savings vary from estimated savings. Impact evaluations will rely on a mix of engineering algorithms, simulation modeling and metering to estimate actual savings. The choice of methodology

will be determined by the size, cost and complexity of the measures installed, as well as the program delivery strategy employed.

- Verification activities will ensure that measures are installed consistent with program requirements and, where appropriate, also will provide information to help improve impact estimates. For some programs, incentive payments are tied to verified savings.

MidAmerican's evaluation approach is designed to be efficient. A key element of MidAmerican's approach is that the evaluation effort is generally structured by evaluation function, rather than by program or customer sector. Each major function, such as process or impact evaluation, starts from an area-wide perspective, with approaches and issues that span all or most program areas. Broad cross-sector evaluation activities then will be focused as needed for each program and provide conclusions specific to that program.

This approach will allow substantial efficiencies in developing and interpreting the information that is gathered for each program. Not only are there many commonalities in program structure and delivery method across the various energy-efficiency programs, but also many of the required evaluation functions are similar even where program delivery methods may vary. In addition, as noted, this approach will allow evaluators to look for consistencies across programs, rather than viewing each program independently.

#### **4. Process Evaluation**

##### **Overview of Process Evaluation Approach**

Process evaluation is the review and assessment of the program administrative structure, processes and implementation. The goal of process analysis is to develop recommendations for improving the management and functioning of the programs so they can more effectively

achieve their goals. Process analysis addresses the design and functioning of the program's administration and not (or at least not directly) the choice or design of the program activities.

MidAmerican completed a residential process evaluation in 2005 and a nonresidential process evaluation in 2006. Many of the recommendations have been implemented and some are still under review.

## **5. Impact Analysis and Monitoring and Verification**

### **Overview of Impact Analysis Approach**

MidAmerican will employ a combination of strategies to estimate measure and program-level impacts. Impacts from:

- The *Residential Equipment*, *Residential Audit*, *Residential Low Income*, *Nonresidential Equipment* and *Nonresidential Audit* programs will be estimated based on engineering estimates, adjusted for known customer-specific factors such as equipment size and efficiency. Engineering reviews will be done periodically to determine the accuracy of the engineering estimates and adjustments may be made, where warranted.
- Both the *Residential and Nonresidential Load Management* programs will be estimated based on detailed load metering. The impact evaluation for the residential load management program will be completed during 2007. The impact evaluation strategy for the nonresidential load management program is to use interval meter data from all participants to measure demand savings on curtailment days. Load levels on curtailment days will be compared to similar peak noncurtailment days to calculate program impacts and customer compliance at the end of each season.
- The *Residential New Construction* program will be based initially on modeled savings for a typical home and sometimes on individually-modeled homes. As necessary,

engineering reviews will be updated, based on actual new home characteristics and savings estimates may be adjusted accordingly.

- The ***Commercial New Construction*** program will be based on detailed site-specific ex-post verification and building simulation modeling for each participant.
- The ***Nonresidential Custom*** program will be established based upon initial engineering estimates made in order to pre-qualify rebates prior to implementation. As necessary, ex-ante and ex-post metering also will be employed to improve the accuracy of the engineering estimates.

### **Overview of Verification Approach**

MidAmerican will undertake extensive activities to verify that measures have been installed according to program guidelines. For most programs, MidAmerican's program contractors perform verification inspections for a sample of participants. For the Residential and Commercial New Construction programs, a majority of buildings are inspected by MidAmerican or certified by independent third parties to ensure that all required measures are installed properly. For Commercial New Construction, the company goes a step further and does building simulation modeling to calculate project savings based on its findings from the verification site visit, and participants then are paid incentives based on verified savings. The verification strategy for the Nonresidential Load Management program is to use the Curtailment Manager software to monitor program compliance in near-real time on curtailment days.

### **Engineering Review Process**

As discussed previously, periodic engineering reviews of energy-savings algorithms will be done to verify the accuracy of initial savings estimates for standard measures. Where significant differences are found to exist, the savings assumptions may be adjusted. The

following paragraphs describe the general approach likely to be taken for these engineering reviews.

For most projects and measures, the engineering reviews will be based largely upon examination and analysis of information provided on rebate forms, program tracking data, project documentation and measurement and verification data showing how energy savings were estimated. These reviews will reveal the degree of differences between actual savings and savings assumed in the program tracking database.

The extent of available data sources will define the scope of further efforts to collect and analyze data to estimate savings impacts for individual projects and/or measures. For most measures, it is likely that extensive data will be available from program operations and no further data collection will be needed. When program data is sketchy or incomplete, additional effort may be required to gather more comprehensive data, particularly for large custom projects.

For a sample of implemented projects, the evaluation will conduct project-specific analyses to estimate impacts. These analyses may include additional measure-specific data collection depending on the adequacy of program data and project documentation. Different levels of analysis may need to be conducted depending upon the complexity of the project or measure and its relative contribution to total program savings.

The first step in the engineering review will be to gather program data, including information provided on rebate forms, tracking data, project documentation and any program monitoring and verification data available. This data will be used to determine the types of measures involved, the degree of complexity in the algorithms used to calculate savings impacts and ultimately, the nature of the review process and analytical methods needed during the engineering review.

The review process for standard measures (generally those in the prescriptive programs) is straightforward. A standard measure requires a relatively simple algorithm that relies generally upon a change in otherwise constant-value parameters. An example is a lighting measure that simply reduces wattage parameters and/or hours of operation from one fixed schedule to another.

A nonstandard measure usually requires a more elaborate algorithm or perhaps many algorithms integrated in a model of operation. An example of a nonstandard measure would be a variable-frequency drive on a motor, the savings depending on variations in equipment loading. Most industrial process measures are nonstandard because of their loading variability and complexity.

For standard measures, a sample will be drawn and brief reviews conducted of the available program data and project documentation to check the completeness of information for developing savings estimates. The accuracy of those estimates then will be checked using standard algorithms.

Our approach to nonstandard measures and projects is correspondingly more complex. First, there is a compilation of project documentation. Many of the nonstandard measures and projects will come through MidAmerican's programs in which energy analysis assistance is provided. Therefore, comprehensive documentation of energy-savings calculations should be available. Technologies and projects associated with programs that do not provide in-depth energy analysis should nonetheless have extensive documentation as well, since the customer (or their consultant) will have done the analysis before turning it over to MidAmerican.

The second step is to review available documentation for completeness. In most cases, the required documentation should have been provided; however, callbacks to customers may be required on occasion to fill in any missing fields or clarify data provided.

## **Analytical Methods**

Savings impacts will be estimated using three main types of analytical methods: engineering analysis, simulation modeling and metering. The particular method chosen will depend on the complexity of the project or measure and the availability of project documentation to perform the analysis.

These methods do not apply to all measures. Nor does increasing complexity of the method necessarily offer a more accurate result. Certain measures, however, do require specific methods to yield a reliable result.

***Engineering analysis*** is the preferred method for standard measures such as lighting retrofits where the impacts are a function simply of wattage and runtime differences. It also applies to such retrofits as insulation and increases in efficiency of constant-load equipment.

Engineering analysis may require both standard project information plus on-site data collection by spot measurements of such values as power, combustion efficiency or flow rate that can verify that correct values are being used in engineering equations. For most of the more complex projects that we expect to be developed, the spot measurement data should have already been collected by the program contractor and be included with the project documentation. Therefore, little additional data collection effort should be required.

***Simulation modeling*** is the preferred method for more complex measures, multiple measures and large loads that vary according to identifiable conditions or a known schedule. This method includes both operational simulation modeling and whole-building simulation. Operational simulation modeling is typically used to estimate energy-savings impacts from complex industrial process technologies, while whole-building simulation is required for very large new commercial buildings or commercial building retrofit projects. It involves elaborate



engineering and computer analysis and usually requires substantial data on the systems or buildings affected by the implemented measure(s). Again, as above, any on-site spot measurements required should already be included with the project documentation.

Project documentation for several of the proposed programs should already include simulation modeling inputs and outputs. For example, the Commercial New Construction program performs post whole-building simulation modeling as part of its verification activities, thus no additional modeling is needed. For some of the industrial programs, extensive modeling will have been done when a project is initially analyzed. Program contractors also may do additional modeling at the verification stage. Thus, the focus of evaluation activities will largely be on reviewing a sample of these analyses, rather than performing the simulations themselves.

Table 1 lists the 10 programs and the various savings-analysis methods applicable to each. As noted above, the assignment of a method to a particular program does not necessarily mean that the evaluator will be performing that analytical step; more likely, their role will be reviewing the work done by others.

**Table 1**  
**Savings-Analysis Methods by Program Component**

Program	Analysis		Simulation	
	Engineering	Metering	Operational	Whole-Building
Residential Equipment	✓			
Residential Audit	✓			
Residential Load Management	✓	✓		
Residential New Construction	✓			✓
Low Income	✓			
Nonresidential Equipment	✓			
Small Commercial Energy Audit	✓			
Nonresidential Load Management	✓	✓		
Commercial New Construction	✓	✓	✓	✓
Nonresidential Custom	✓	✓	✓	

*Metered Data* is the preferred method for load management programs.

During 2007, a detailed impact evaluation of the Residential Load Management program in Iowa will be completed. To assess program impacts, the evaluation relies on field inspections and installation of end-use metering on a large sample of participants. Because of the complexity of this task and the need to collect data during summer months when cycling is occurring, it has taken two years to complete.

Field inspections will be used to determine the degree to which air conditioner load is effectively being controlled. A sample of participants has been selected for these field inspections. Possible inspection results might reveal:

- Faulty switches that are unable to receive the signal to cycle,
- Switches that have been tampered with so the signal is not received and
- Air conditioners that are no longer being operated.

End-use metering has been installed on the air conditioner compressors of a sample of participants. The sample represents a subset of those sites with properly functioning equipment based on the field inspection findings. Load impacts will be calculated by comparing end-use loads on cycling days versus loads on comparable weather days in which there was no cycling. Impacts will be calculated using one of the following approaches: (1) load impacts will be calculated based on differences between loads on cycling versus non-cycling days; or (2) load impacts will be calculated based on differences in air conditioner loads for participants versus a control group. The end-use metering will provide load shapes as well as load impacts, which can help to answer questions concerning the impact of the program on shoulder periods during cycling days.

Metering also is used each year to calculate impacts from the Nonresidential Load Management program. Each program participant has interval meters installed and MidAmerican calculates program impacts by comparing metered load on curtailment days to load on non-curtailment days with similar characteristics.

Metering also is used, as appropriate, to improve the engineering algorithms and simulation modeling used to calculate impacts in the Nonresidential New Construction and Nonresidential Custom programs. Typically, metering is used to confirm operating characteristics for key equipment (e.g., lighting operating hours, cooling system temperatures).

## **6. Conclusion**

MidAmerican is planning to implement a comprehensive set of monitoring and evaluation activities for its South Dakota energy-efficiency programs. These activities will provide program managers with timely information and feedback that will allow them to monitor program performance and identify implementation problems as they arise, helping the company achieve its overall energy-efficiency goals and objectives.

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## **Accounting Plan and Procedures**

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### **1. Introduction**

This section describes MidAmerican's plan and procedures to account for energy efficiency in South Dakota. These procedures ensure that these costs are categorized appropriately and in sufficient detail to identify individual costs for each program by type of expenditure.

### **2. Accounting System**

MidAmerican will use the Management Information System (MIS) to identify expenditures as energy-efficiency expenditures. Costs are separated by program, cost category and resource using project numbers, subnumbers and cost elements. The project numbers are used to indicate the energy-efficiency program for which the costs are being incurred. Project subnumbers are used to designate the category of costs, such as planning, administration, customer incentives, etc. Cost elements are used to indicate the type of cost such as labor, transportation or nonlabor voucher costs.

In general, the company uses a 44-character codeblock to account for expenditures. Using the MIS codeblock, employees assign the appropriate energy-efficiency codeblock to time sheets, purchase orders, requests for payment and employee expense reports. Those elements of the codeblock that are specifically used to account for energy-efficiency expenditures are as follows.

#### **Responsibility Center**

The responsibility center is used to identify the organizational unit within the company that is responsible for the expenditure.

## **Bill Center**

The bill center is used to identify the business unit for which the cost was incurred. For energy-efficiency expenditures within the Delivery business unit, the bill center is the same as the responsibility center.

## **Utility Indicator**

The utility indicator is a utility type code used to identify which utility - electric, gas or common (allocated to gas and electric) - is responsible for the expenditure.

## **Activities**

The activity number is used to identify energy-efficiency expenditures. The activity numbers used are as follows.

173172 MEC Electric Recoveries Over/Under  
173272 MEC Gas Recoveries Over/Under  
186340 MEC Gas Deferred Expenditures  
186350 MEC Electric Deferred Expenditures  
186385 MEC Commercial New Construction Discount  
254200 MEC Commercial New Construction Regulated Liability  
431061 Interest Expense – Energy-Efficiency New Construction  
440011 Electric Residential Revenue  
440045 Electric Residential Over/Under Recoveries  
442001 Electric Small General Service Revenue  
442045 Electric Small General Service Over/Under Recoveries  
444211 Electric Large General Service Revenue  
442245 Electric Large General Service Over/Under Recoveries

445011 Electric Public Authorities Revenue

480011 Gas Residential Service Revenue

480042 Gas Residential Over/Under Recoveries

481011 Gas Commercial Service Revenue

481042 Gas Commercial Over/Under Recoveries

481211 Gas Industrial Service Revenue

481242 Gas Industrial Over/Under Recoveries

908105 Electric Amortization

908205 Gas Amortization

### **Project Numbers**

The following project numbers are to be used.

#### ***Electric Utility***

<u>Project Number</u>	<u>Project Name</u>
17802	Residential Equipment
17804	Commercial New Construction
17805	Nonresidential Equipment
17806	Residential New Construction
17808	Residential Audit
17812	Energy-Efficiency Management – Nonresidential
17817	Nonresidential Custom
17818	Energy-Efficiency Management – Residential
17820	Small Commercial Energy Audit
17831	Residential Load Management



17834	Energy-Efficiency Management – Residential and Nonresidential
17836	Nonresidential Load Management
17839	Low Income

### ***Gas Utility***

<u>Project Number</u>	<u>Project Name</u>
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46002	Residential New Construction
98647	Small Commercial Energy Audit
98849	Energy-Efficiency Management – Residential
98851	Commercial New Construction
98852	Energy-Efficiency Management – Nonresidential
98853	Energy-Efficiency Management – Residential and Nonresidential
98854	Low Income
98855	Residential Audit
98856	Residential Equipment
98858	Nonresidential Equipment
98859	Nonresidential Custom

### **Project Subnumbers**

Project subnumbers are used to identify the cost category of the expenditure. The project subnumbers that are used for MidAmerican energy-efficiency expenditures are as follows.

- 30 Planning and Design
- 31 Administration
- 32 Advertising and Promotion

- 33 Customer Incentives
- 34 Monitoring and Evaluation
- 36 Equipment
- 37 Installation

Additional numbers or letters may be used to further segregate costs.

### **Location**

All energy-efficiency expenditures will be accounted for using South Dakota location code 400.

### **Cost Elements**

The appropriate cost elements will be used to identify the type of cost, i.e. labor, transportation or nonlabor.

The MIS system and code block for energy-efficiency expenditures make it possible to identify where the expenditures originated, which program the expenditures were made for, the type of source of the expenditure and the category or type of expenditure. MIS completely supports both the internal information requirements and the regulatory reporting requirements related to program expenditures.

## **3. Procedures**

### **Direct Costs**

Direct costs are expenditures that can be specifically assigned to energy-efficiency programs. All employees active in the design, implementation or evaluation of energy-efficiency programs and related activities are trained in the use of the energy-efficiency activity codeblock and are instructed to charge all costs, both labor and nonlabor, that are incurred in the performance of their energy-efficiency assignments to these energy-efficiency activities.

## **Accruals**

The company may accrue energy-efficiency budgeted funds for certain projects with long lead times between project enrollment and completion. This results in charging anticipated expenses in the year in which the company pre-approves large projects. This procedure enables the company to enter each new plan year with its planned budget intact for projects of that plan year. Further, this procedure responds fully to our nonresidential customers' concerns that the company might not be administering energy-efficiency programs in the future due to unforeseen regulatory changes and, thus, the customers might not receive their earned and promised incentive payments.

At the end of the year, a journal entry is made charging the appropriate energy-efficiency account codeblock for the total amount of the incentive less a discount amount. This discount amount is computed using U.S. Treasury commercial paper rates and debited to a deferred debit activity (not an energy-efficiency activity). The total amount of the incentives is credited to a regulated liability activity. As a result of this entry, the company receives these incentive dollars in the current energy-efficiency cost-recovery reconciliation year, but at a reduced level to reflect the fact that they have not actually paid the incentives yet. As needed, these amounts are updated to reflect changes in estimated expenses and completion dates. An interest expense activity is debited and the discount activity is credited to offset the interest income the company has been receiving on this revenue. The regulated liability activity will be reduced as incentive payments are made, and eventually zeroed out, as will the discount activity, upon payment of the final incentive.

This is beneficial to both the customer and the company. The company begins recovery of this discounted amount in the year of occurrence of the energy-efficiency charges and,

through the regulated activity, the customer is assured of payment of the incentive regardless of what entity, if any, is administering energy-efficiency programs at that time. This procedure may be used for the Commercial New Construction program.

### **Indirect Costs**

Indirect costs are expenditures incurred to support energy-efficiency programs that cannot be specifically assigned (directly charged) to energy-efficiency programs. These expenditures are charged to programs through the use of loading rates. They include such items as paid absence and employee benefits.

### **Recoveries**

Energy-efficiency expenditures are charged to unique deferred debit activities. When amounts are billed to customers, they will be credited to the appropriate revenue activity through the company's Customer Information System (CIS).

Anticipated recoveries will be projected for the 12 months of the recovery period and as amounts are recovered from customers, an entry will be made to book the amount over or under the anticipated recovery. The deferred debits for energy-efficiency expenditures will be reduced on a monthly basis by the amount of the approved expenditures as they are amortized.

## **4. Summary**

To summarize, the basic accounting procedures will work as follows.

- As expenditures are made, they are recorded in the deferral activities. Under certain circumstances, accruals may be made as discussed above.
- The expenditures are loaded as appropriate using the various loading rates.
- The approved expenditures are expensed monthly based on authorized recoveries.

- The recovery of approved expenditures and other costs, if appropriate, is billed to regular service accounts.

## **5. General**

Any questions regarding this accounting plan and the energy-efficiency accounting procedures should be directed to Rick Leuthauser, manager of energy efficiency, at 563-333-8846. Rick provides direction and oversees the maintenance of these procedures.

## Cost Recovery

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### 1. Overview

This section provides an overview of MidAmerican's cost-recovery proposal, including a description of the guiding principles that MidAmerican used to develop cost-recovery factors, as well as calculations of the factors themselves.

### 2. Guiding Principles

MidAmerican believes it is appropriate for cost recovery of energy-efficiency programs to be current, or with a minimum of regulatory lag, rather than deferred until the filing of a rate case. Contemporaneous recovery reduces the cost of capital to fund energy-efficiency programs, thereby lowering costs to customers. It also allows MidAmerican, regulators and customers to immediately assess the magnitude of bill impacts and adjust program spending as appropriate.

MidAmerican also used the following general guidelines to develop its proposal for recovery of energy-efficiency costs.

- Electric program costs are collected from electric customers and natural gas program costs are collected from natural gas customers.
- Costs are recovered separately from residential and nonresidential customer classes.
- Costs are recovered on a volumetric basis.
- Costs will be reconciled annually with over- and under-collections rolled into the following recovery year.

MidAmerican proposes that the collection of energy-efficiency charges be assessed through the use of a separate volumetric factor rather than using the fuel adjustment clause (FAC) for electric, or the purchased gas adjustment factor (PGA) for gas, as a collection

mechanism. Using the FAC or PGA as collection mechanisms was not workable because these adjustment factors are not calculated on a class-specific basis.

MidAmerican proposes to add its energy-efficiency cost-recovery factor to base volumetric rates. The company's current billing system already is capable of billing the energy-efficiency factor as an addition to the base volumetric rates.

MidAmerican proposes to exclude street lighting and private area lighting from electric energy-efficiency cost recovery until such time as a segment within the electric energy-efficiency program benefiting lighting customers is established. Initially the electric energy-efficiency program will be available to and costs recovered from non-lighting electric customers only. Street lighting and private area lighting are inherently off-peak users of electricity and generally do not contribute to system load in high-cost, peak-period hours.

MidAmerican proposes to make natural gas energy-efficiency programs available to and recover costs from natural gas sales service customers and monthly-metered transportation customers, but not from daily-metered transportation customers. Monthly-metered transportation customers are schools and government facilities that are heat-sensitive and therefore could benefit from energy-efficiency programs. Including daily-metered transportation customers in energy-efficiency programs could be problematic, since they are not purchasing commodity from the utility, and therefore the volumetric charge for energy efficiency typically represents a much higher percentage of their natural gas utility bill than it does for sales customers. These daily-metered transportation customers also are more likely to be actively managing their natural gas costs.

With this filing, MidAmerican is seeking to recover lost revenues resulting from the effective implementation of natural gas energy-efficiency programs. Over the period of time in



which MidAmerican has offered energy-efficiency programs in Iowa, there has been a reduction in the average usage per residential customer resulting in decreased earnings. MidAmerican's natural gas earnings in South Dakota are already declining because of the infrastructure required to support the significant number of customers being added in its service territory. Additional reductions in the use per customer caused by effective energy-efficiency programs would increase the need for additional rate cases, increasing administrative costs for both the Commission and MidAmerican.

With this filing, MidAmerican is not seeking to recover revenue lost from the effective implementation of electric energy-efficiency programs. At the current time MidAmerican is not experiencing a decline in electricity use per customer in its South Dakota service territory. Steady or increasing usage lessens the financial impact of energy-efficiency programs on the company and makes it somewhat more challenging to appropriately identify lost revenues. MidAmerican's South Dakota electric customer base is very small and consequently it would be administratively inefficient to calculate and implement electric lost revenue recovery.

### **3. Cost-Recovery Calculations**

MidAmerican's proposed natural gas and electric energy-efficiency tariffs are included as Attachments E1-1(G) and E1-1(E) at the end of this section. Each tariff includes a formula that defines the calculation of the respective energy-efficiency cost-recovery charge.

The cost-recovery mechanism for electric energy-efficiency programs consists of calculating a factor to recover from electric sales service customers (excluding street and private lighting customers), energy-efficiency expenditures and related costs approved by the Commission. Expenditures will include all costs budgeted for programs, administrative expenses and related costs. Separate cost-recovery factors are calculated for residential and nonresidential

customer classes by dividing the projected annual energy-efficiency expenditures and related costs for each group by the annual projected sales for that group. Also included in the calculation of the recovery factor is a reconciliation component. This component incorporates the net of the actual costs of approved energy-efficiency expenditures and related costs for the prior annual period, less the actual energy-efficiency factor revenues collected during that period, divided by the projected annual sales. See attachment E1-2(E).

The cost-recovery mechanism for natural gas energy-efficiency programs consists of calculating a factor to recover from natural gas sales service and monthly-metered transportation customers, energy-efficiency expenditures and related costs approved by the Commission. Expenditures will include all costs budgeted for programs, administrative expenses and related costs, including lost revenues. Separate cost-recovery factors are calculated for residential and nonresidential customer classes by dividing the projected annual energy-efficiency expenditures and related costs for each group by the annual projected sales for that group. Also included in the calculation of the recovery factor is a reconciliation component. This component incorporates the net of the actual costs of approved energy-efficiency expenditures and related costs for the prior annual period, less the actual energy-efficiency factor revenues collected during that period, divided by the projected annual sales. See attachment E1-2(G).

To calculate the lost revenues associated with natural gas energy-efficiency programs, program impacts, or therm savings, are first estimated for each program and rate code. Lost revenues then are calculated by multiplying the therm savings by the non-gas commodity charge for each rate code. For rate codes where the tariff provides different non-gas commodity charges at different usage steps, the South Dakota bill frequency report is used to allocate therm savings

between steps. Lost revenues are included in calculating the cost-recovery factor. See attachment E1-3(G).



MIDAMERICAN ENERGY COMPANY  
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Sioux City, Iowa 51102

SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
**First Revised Sheet No. 8**  
**Cancels** Original Issue Sheet Nos. 8-40

**DESIGNATION:**

**CLASS OF SERVICE:** *Gas Energy Efficiency Cost Recovery*

**RESERVED FOR FUTURE USE**

**1. Application**

*Applicable in all service areas in South Dakota and to all customers served under the Company's rate schedules except for daily metered gas transportation customers. Separate factors will be calculated for residential and for non-residential customers.*

**2. Purpose**

*This factor is designed to recover energy efficiency expenditures and related costs approved by the South Dakota Public Utilities Commission (Commission).*

**3. Implementation**

*Energy efficiency expenditures and related costs will be recovered each year. Energy efficiency charges will be added to energy charges for purpose of billing.*

**4. Determination of Factor**

*The cost recovery factors will be determined as follows:*

$$ECR_c = \frac{EXP_c + REL_c}{S_c} + \frac{RL_c}{S_c} + \frac{R_c}{S_c}$$

*Where:*

*ECR = Energy efficiency charge in cents per therm to be applied to customers served under each class (c) rate schedule.*

*c = Customer class, as follows:*

*Residential – SVF and MVF  
Non-Residential – SVF, MVF, LVF, SVI, LVI, SSS, LSS, MMT, and  
MMT Interruptible*

*EXP = Energy efficiency expenditures by class as approved by the Commission.*

*REL = Commission approved related costs*

*S = Sales - Forecasted therm sales for the collection period.*

*RL = Revenue lost from implementation of energy efficiency program.*

*R = Reconciliation amount. The net of the approved expenditures plus related costs for the annual period less actual energy efficiency factor revenues collected.*

Date Filed: **April 16, 2007** ~~September 22, 1995~~

Effective Date: **January 1, 2008** ~~November 15, 1995~~

Issued By: **Naomi Czachura** ~~James J. Howard~~  
Vice President ~~Gas Administrative Services~~

**Attachment E1-1(G)**



MIDAMERICAN ENERGY COMPANY  
P.O. Box 778  
Sioux City, Iowa 51102

SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
**1<sup>st</sup> Revised Sheet No. 9**  
***Cancels*** Original Issue Sheet Nos. 9 8-10

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**DESIGNATION:**

**CLASS OF SERVICE:** *Gas Energy Efficiency Cost Recovery*

**RESERVED FOR FUTURE USE**

**5. *Energy Efficiency Recovery Factors***

	<u>Residential</u>	<u>Non-Residential</u>
On-going MidAmerican Costs	\$0.01650/therm	\$0.00556/therm

**6. *Reconciliation***

*A reconciliation will be filed annually. The energy efficiency costs recovered from customers during the prior period will be compared to those which were allowed to be recovered. Any over/under collection, and any change in forecast sales, will be used to adjust the current energy efficiency cost recovery factors.*

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Date Filed: **April 16, 2007** ~~September 22, 1995~~      Effective Date: **January 1, 2008** ~~November 15, 1995~~

Issued By: **Naomi Czachura** ~~James J. Howard~~  
Vice President ~~Gas Administrative Services~~

**Attachment E1-1(G)**

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MIDAMERICAN ENERGY COMPANY  
P.O. Box 778  
Sioux City, Iowa 51102

SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
First Revised Sheet No. 8  
Cancels Original Issue Sheet No. 8

**CLASS OF SERVICE:** Gas Energy Efficiency Cost Recovery

**1. Application**

Applicable in all service areas in South Dakota and to all customers served under the Company's rate schedules except for daily metered gas transportation customers. Separate factors will be calculated for residential and for non-residential customers.

**2. Purpose**

This factor is designed to recover energy efficiency expenditures and related costs approved by the South Dakota Public Utilities Commission (Commission).

**3. Implementation**

Energy efficiency expenditures and related costs will be recovered each year. Energy efficiency charges will be added to energy charges for purpose of billing.

**4. Determination of Factor**

The cost recovery factors will be determined as follows:

$$ECR_c = \frac{EXP_c + REL_c}{S_c} + \frac{RL_c}{S_c} + \frac{R_c}{S_c}$$

Where:

ECR = Energy efficiency charge in cents per therm to be applied to customers served under each class (c) rate schedule.

c = Customer class, as follows:

Residential –	SVF and MVF
Non-Residential –	SVF, MVF, LVF, SVI, LVI, SSS, LSS, MMT, and MMT Interruptible

EXP = Energy efficiency expenditures by class as approved by the Commission.

REL = Commission approved related costs

S = Sales - Forecasted therm sales for the collection period.

RL = Revenue lost from implementation of energy efficiency program.

R = Reconciliation amount. The net of the approved expenditures plus related costs for the annual period less actual energy efficiency factor revenues collected.

Date Filed: April 16, 2007

Effective Date: January 1, 2008

Issued By: Naomi Czachura  
Vice President

Attachment E1-1(G)







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**DESIGNATION: Electric Energy Efficiency Cost Recovery**

**1. Application**

Applicable in all service areas in South Dakota and to all customers served under the Company's rate schedules except for lighting customers. Separate factors will be calculated for residential and for non-residential customers.

**2. Purpose**

This factor is designed to recover energy efficiency expenditures and related costs approved by the South Dakota Public Utilities Commission (Commission).

**3. Implementation**

Energy efficiency expenditures and related costs will be recovered each year. Energy efficiency charges will be added to energy charges for purpose of billing.

**4. Determination of factor**

The cost recovery factors will be determined as follows:

$$ECR_c = \frac{EXP_c + REL_c}{S_c} + \frac{R_c}{S_c}$$

Where:

ECR = Energy efficiency charge in cents per kWh to be applied to customers served under each class (c) rate schedule.

c = Customer class, as follows:

Residential – RBD, RWD, RSD, RED and RTD  
Non-Residential – GBD, GED, GDD, GPD, GHD, GUD, GTD, GSD, GWD, LLD,  
ALD, LPD, APD, LED, LHD, LTD/LOD, LVD/LRD, LDP/LDO,  
ABD and ATD

EXP = Energy efficiency expenditures by class as approved by the Commission.

REL = Commission approved related costs

S = Sales - Forecasted kWh sales for the recollection period.

R = Reconciliation amount. The net of the approved expenditures plus related costs for the annual period less actual energy efficiency factor revenues collected.



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. 1  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
Original Sheet No. C-3a

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**DESIGNATION: Electric Energy Efficiency Cost Recovery**

**5. Energy Efficiency Recovery Factors**

	<u>Residential</u>	<u>Non-Residential</u>
On-going MidAmerican Costs	\$0.00064/kWh	\$0.00020/kWh

**6. Reconciliation**

A reconciliation will be filed annually. The energy efficiency costs recovered from customers during the prior period will be compared to those which were allowed to be recovered. Any over/under collection, and any change in forecast sales, will be used to adjust the current energy efficiency cost recovery factors.

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Date Filed: April 16, 2007

Effective: January 1, 2008

Issued By: Naomi Czachura  
Vice President

**Attachment E1-1(E)**

MidAmerican Energy Company  
South Dakota Gas  
Contemporaneous Costs  
Calculation of Gas ECR Factors  
Year Ending December 31, 2008

Line No.	Item	Authorized Recoveries	Prior Year Over(Under) Recoveries	Lost Revenue Recoveries	ECR Factor Numerator	Projected Annual Sales	Projected (Month/Year)		Remaining Balances		ECR Factor
							Sales	Recovery <sup>(1)</sup>	ECR Factor Numerator	Sales	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
					(b)-(c)+(d)				(e)-(h)	(f)-(g)	(i)/(j)
1	Residential	\$ 894,000	\$ -	\$ 27,741	\$ 921,741	55,855,605	-	\$ -	\$ 921,741	55,855,605	\$ 0.01650
2	Non-residential	213,000	-	4,274	217,274	39,079,793	-	-	217,274	39,079,793	\$ 0.00556
3	Total	<u>\$1,107,000</u>	<u>\$ -</u>	<u>\$ 32,016</u>	<u>\$1,139,016</u>			<u>\$ -</u>	<u>\$1,139,016</u>		

<sup>(1)</sup> Projected recovery calculated using current factors in effect:

Residential	\$0.00000
Non-residential	\$0.00000

MidAmerican Energy Company  
South Dakota Gas  
Contemporaneous Costs  
Calculation of Gas ECR Factors  
Year Ending December 31, 2009

Line No.	Item	Authorized Recoveries	Prior Year Over(Under) Recoveries	Lost Revenue Recoveries	ECR Factor Numerator	Projected Annual Sales	Projected (Month/Year)		Remaining Balances		ECR Factor
							Sales	Recovery <sup>(1)</sup>	ECR Factor Numerator	Sales	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
					(b)-(c)+(d)				(e)-(h)	(f)-(g)	(i)/(j)
1	Residential	\$ 968,000	\$ -	\$ 61,365	\$1,029,365	55,855,605	-	\$ -	\$1,029,365	55,855,605	\$ 0.01843
2	Non-residential	148,000	-	9,457	157,457	39,079,793	-	-	157,457	39,079,793	\$ 0.00403
3	Total	<u>\$1,116,000</u>	<u>\$ -</u>	<u>\$ 70,822</u>	<u>\$1,186,822</u>			<u>\$ -</u>	<u>\$1,186,822</u>		

<sup>(1)</sup> Projected recovery calculated using current factors in effect:

Residential	\$0.00000
Non-residential	\$0.00000

MidAmerican Energy Company  
South Dakota Gas  
Contemporaneous Costs  
Calculation of Gas ECR Factors  
Year Ending December 31, 2010

Line No.	Item	Authorized Recoveries	Prior Year Over(Under) Recoveries	Lost Revenue Recoveries	ECR Factor Numerator	Projected Annual Sales	Projected (Month/Year)		Remaining Balances		ECR Factor
							Sales	Recovery <sup>(1)</sup>	ECR Factor Numerator	Sales	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
					(b)-(c)+(d)				(e)-(h)	(f)-(g)	(i)/(j)
1	Residential	\$1,224,000	\$ -	\$ 104,631	\$1,328,631	55,855,605	-	\$ -	\$1,328,631	55,855,605	\$ 0.02379
2	Non-residential	275,000	-	17,962	292,962	39,079,793	-	-	292,962	39,079,793	\$ 0.00750
3	Total	<u>\$1,499,000</u>	<u>\$ -</u>	<u>\$ 122,594</u>	<u>\$1,621,594</u>			<u>\$ -</u>	<u>\$1,621,594</u>		

<sup>(1)</sup> Projected recovery calculated using current factors in effect:

Residential	\$0.00000
Non-residential	\$0.00000

MidAmerican Energy Company  
South Dakota Electric  
Contemporaneous Costs  
Calculation of Electric ECR Factors  
Year Ending December 31, 2008

Line No.	Item	Authorized Recoveries	Prior Year Over(Under) Recoveries	ECR Factor Numerator	Projected Annual Sales	Projected (Month/Year)		Remaining Balances		ECR Factor
						Sales	Recovery <sup>(1)</sup>	ECR Factor Numerator	Sales	
	(a)	(b)	(c)	(d) (b)-(c)	(e)	(f)	(g)	(h) (d)-(g)	(i) (e)-(f)	(j) (h)/(i)
1	Residential	\$ 24,000	\$ -	\$ 24,000	37,321,630	-	\$ -	\$ 24,000	37,321,630	\$ 0.00064
2	Non-residential	34,000	-	34,000	173,042,985	-	-	34,000	173,042,985	\$ 0.00020
3	Total	<u>\$ 58,000</u>	<u>\$ -</u>	<u>\$ 58,000</u>			<u>\$ -</u>	<u>\$ 58,000</u>		

<sup>(1)</sup> Projected recovery calculated using current factors in effect:

Residential	\$0.00000
Non-residential	\$0.00000

MidAmerican Energy Company  
South Dakota Electric  
Contemporaneous Costs  
Calculation of Electric ECR Factors  
Year Ending December 31, 2009

Line No.	Item	Authorized Recoveries	Prior Year Over(Under) Recoveries	ECR Factor Numerator	Projected Annual Sales	Projected (Month/Year)		Remaining Balances		ECR Factor
						Sales	Recovery <sup>(1)</sup>	ECR Factor Numerator	Sales	
	(a)	(b)	(c)	(d) (b)-(c)	(e)	(f)	(g)	(h) (d)-(g)	(i) (e)-(f)	(j) (h)/(i)
1	Residential	\$ 62,000	\$ -	\$ 62,000	37,321,630	-	\$ -	\$ 62,000	37,321,630	\$ 0.00166
2	Non-residential	98,000	-	98,000	173,042,985	-	-	98,000	173,042,985	\$ 0.00057
3	Total	<u>\$ 160,000</u>	<u>\$ -</u>	<u>\$ 160,000</u>			<u>\$ -</u>	<u>\$ 160,000</u>		

<sup>(1)</sup> Projected recovery calculated using current factors in effect:

Residential	\$0.00000
Non-residential	\$0.00000

MidAmerican Energy Company  
South Dakota Electric  
Contemporaneous Costs  
Calculation of Electric ECR Factors  
Year Ending December 31, 2010

Line No.	Item	Authorized Recoveries	Prior Year Over(Under) Recoveries	ECR Factor Numerator	Projected Annual Sales	Projected (Month/Year)		Remaining Balances		ECR Factor
						Sales	Recovery <sup>(1)</sup>	ECR Factor Numerator	Sales	
	(a)	(b)	(c)	(d) (b)-(c)	(e)	(f)	(g)	(h) (d)-(g)	(i) (e)-(f)	(j) (h)/(i)
1	Residential	\$ 60,000	\$ -	\$ 60,000	37,321,630	-	\$ -	\$ 60,000	37,321,630	\$ 0.00161
2	Non-residential	116,000	-	116,000	173,042,985	-	-	116,000	173,042,985	\$ 0.00067
3	Total	<u>\$ 176,000</u>	<u>\$ -</u>	<u>\$ 176,000</u>			<u>\$ -</u>	<u>\$ 176,000</u>		

<sup>(1)</sup> Projected recovery calculated using current factors in effect:

Residential	\$0.00000
Non-residential	\$0.00000



South Dakota Energy Efficiency  
Residential Gas Lost Revenues

**2008 SD Rate SVF Impacts =** 153,740

<u>South Dakota SVF Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
1st 250	0.18125	48,997,510	151,224	\$ 27,409.29
over 250	0.13191	815,303	2,516	331.93
		<u>49,812,813</u>	<u>153,740</u>	<u>\$ 27,741.22</u>

**2009 SD Rate SVF Impacts =** 340,080

<u>South Dakota SVF Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
1st 250	0.18125	48,997,510	334,514	\$ 60,630.63
over 250	0.13191	815,303	5,566	734.24
		<u>49,812,813</u>	<u>340,080</u>	<u>\$ 61,364.86</u>

**2010 SD Rate SVF Impacts =** 579,860

<u>South Dakota SVF Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
1st 250	0.18125	48,997,510	570,369	\$ 103,379.42
over 250	0.13191	815,303	9,491	1,251.93
		<u>49,812,813</u>	<u>579,860</u>	<u>\$ 104,631.35</u>

South Dakota Energy Efficiency  
Nonresidential Gas Lost Revenues

**2008 SD Rate SVF Impacts =** 19,382

<u>South Dakota SVF Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
1st 250	0.18125	9,122,267	10,191	\$ 1,847.05
over 250	0.13191	8,227,785	9,191	1,212.43
		17,350,052	19,382	\$ 3,059.48

**2009 SD Rate SVF Impacts =** 42,874

<u>South Dakota SVF Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
1st 250	0.18125	9,122,267	22,542	\$ 4,085.77
over 250	0.13191	8,227,785	20,332	2,681.97
		17,350,052	42,874	\$ 6,767.74

**2010 SD Rate SVF Impacts =** 78,842

<u>South Dakota SVF Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
1st 250	0.18125	9,122,267	41,453	\$ 7,513.42
over 250	0.13191	8,227,785	37,389	4,931.94
		17,350,052	78,842	\$ 12,445.36

South Dakota Energy Efficiency  
Nonresidential Gas Lost Revenues

**2008 SD Rate MVF Impacts = 15,318**

<u>South Dakota MVF Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
all therms	0.07201	15,974,869	15,318	\$ 1,103.05
		15,974,869		\$ 1,103.05

**2009 SD Rate MVF Impacts = 33,837**

<u>South Dakota MVF Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
all therms	0.07201	15,974,869	33,837	\$ 2,436.60
		15,974,869		\$ 2,436.60

**2010 SD Rate MVF Impacts = 67,919**

<u>South Dakota MVF Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
all therms	0.07201	15,974,869	67,919	\$ 4,890.85
		15,974,869		\$ 4,890.85

South Dakota Energy Efficiency  
Nonresidential Gas Lost Revenues

2008 Summary

<u>SD Rate</u>	<u>Therm Savings</u>	<u>Lost Revenue</u>
SVF	19,382	\$ 3,059.48
MVF	15,318	1,103.05
STS	653	103.46
MTS	108	7.78
SSS	9	0.52
	<u>35,470</u>	<u>\$ 4,274.29</u>

2009 Summary

<u>SD Rate</u>	<u>Therm Savings</u>	<u>Lost Revenue</u>
SVF	42,874	\$ 6,767.74
MVF	33,837	2,436.60
STS	1,475	233.70
MTS	244	17.57
SSS	20	1.16
	<u>78,450</u>	<u>\$ 9,456.77</u>

2010 Summary

<u>SD Rate</u>	<u>Therm Savings</u>	<u>Lost Revenue</u>
SVF	78,842	\$ 12,445.36
MVF	67,919	4,890.85
STS	3,710	587.81
MTS	506	36.44
SSS	33	1.91
	<u>151,010</u>	<u>\$ 17,962.37</u>

South Dakota Energy Efficiency  
Nonresidential Gas Lost Revenues

**2008 SD Rate STS Impacts = 653**

<u>SD Rate STS</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
1st 250	0.18125	41,773	351	\$ 63.64
over 250	0.13191	35,916	302	39.82
		<u>77,689</u>		<u>\$ 103.46</u>

**2009 SD Rate STS Impacts = 1,475**

<u>SD Rate STS</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
1st 250	0.18125	41,773	793	\$ 143.75
over 250	0.13191	35,916	682	89.95
		<u>77,689</u>		<u>\$ 233.70</u>

**2010 SD Rate STS Impacts = 3,710**

<u>SD Rate STS</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
1st 250	0.18125	41,773	1,995	\$ 361.57
over 250	0.13191	35,916	1,715	226.25
		<u>77,689</u>		<u>\$ 587.81</u>

South Dakota Energy Efficiency  
Nonresidential Gas Lost Revenues

**2008 SD Rate MTS Impacts = 108**

<u>SD MTS Rate</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
all therms	0.07201	296,969	108	\$ 7.78
		296,969		\$ 7.78

**2009 SD Rate MTS Impacts = 244**

<u>SD MTS Rate</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
all therms	0.07201	296,969	244	\$ 17.57
		296,969		\$ 17.57

**2010 SD Rate MTS Impacts = 506**

<u>SD MTS Rate</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
all therms	0.07201	296,969	506	\$ 36.44
		296,969		\$ 36.44

South Dakota Energy Efficiency  
Nonresidential Gas Lost Revenues

**2008 SD Rate SSS Impacts = 9**

<u>South Dakota SSS Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
Apr thru Dec	0.05150	260,116	8	\$ 0.40
Jan thru Mar	0.10036	40,071	1	0.12
		<u>300,187</u>		<u>\$ 0.52</u>

**2009 SD Rate SSS Impacts = 20**

<u>South Dakota SSS Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
Apr thru Dec	0.05150	260,116	17	\$ 0.89
Jan thru Mar	0.10036	40,071	3	0.27
		<u>300,187</u>		<u>\$ 1.16</u>

**2010 SD Rate SSS Impacts = 33**

<u>South Dakota SSS Rates</u>		<u>Total SD Therms</u>	<u>Allocated Impact</u>	<u>South Dakota Lost Revenue</u>
Apr thru Dec	0.05150	260,116	29	\$ 1.47
Jan thru Mar	0.10036	40,071	4	0.44
		<u>300,187</u>		<u>\$ 1.91</u>

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MIDAMERICAN ENERGY COMPANY  
P.O. Box 778  
Sioux City, Iowa 51102

SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
6<sup>th</sup> Revised Sheet No. 1  
Cancels Fifth Revised Sheet No. 1

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SOUTH DAKOTA GAS SALES TARIFF  
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First Revised Sheet No. 8  
Cancels Original Issue Sheet No. 8

**CLASS OF SERVICE:** Gas Energy Efficiency Cost Recovery

**1. Application**

Applicable in all service areas in South Dakota and to all customers served under the Company's rate schedules except for daily metered gas transportation customers. Separate factors will be calculated for residential and for non-residential customers.

**2. Purpose**

This factor is designed to recover energy efficiency expenditures and related costs approved by the South Dakota Public Utilities Commission (Commission).

**3. Implementation**

Energy efficiency expenditures and related costs will be recovered each year. Energy efficiency charges will be added to energy charges for purpose of billing.

**4. Determination of Factor**

The cost recovery factors will be determined as follows:

$$ECR_c = \frac{EXP_c + REL_c}{S_c} + \frac{RL_c}{S_c} + \frac{R_c}{S_c}$$

Where:

ECR = Energy efficiency charge in cents per therm to be applied to customers served under each class (c) rate schedule.

c = Customer class, as follows:

Residential –	SVF and MVF
Non-Residential –	SVF, MVF, LVF, SVI, LVI, SSS, LSS, MMT, and MMT Interruptible

EXP = Energy efficiency expenditures by class as approved by the Commission.

REL = Commission approved related costs

S = Sales - Forecasted therm sales for the collection period.

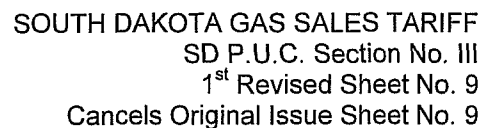
RL = Revenue lost from implementation of energy efficiency program.

R = Reconciliation amount. The net of the approved expenditures plus related costs for the annual period less actual energy efficiency factor revenues collected.

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A reconciliation will be filed annually. The energy efficiency costs recovered from customers during the prior period will be compared to those which were allowed to be recovered. Any over/under collection, and any change in forecast sales, will be used to adjust the current energy efficiency cost recovery factors.

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**CLASS OF SERVICE:**

D

RESERVED FOR FUTURE USE

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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
4<sup>th</sup> Revised Sheet No. 11  
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**DESIGNATION:** Small Volume Firm (SVF)  
**CLASS OF SERVICE:** Residential, Commercial and Industrial

**1. Application**

Available in all service areas in South Dakota.

Applicable to all firm natural gas service normally supplied through one meter at a single point of delivery for all residential, commercial, and industrial customers having peak day requirements of less than 500 therms. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	SVF
Service Charge per Meter:	\$ 8.00
Non-Gas Commodity Charge:	
First 250 therms per therm	\$ .18125
Balance per therm	\$ .13191

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1, (Sheet No. 3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
Gas Energy Efficiency Cost Recovery (Sheet No. 9)

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Minimum Charge**

The minimum charge is the service charge plus the commodity charge for all therms used.

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SOUTH DAKOTA GAS SALES TARIFF  
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Cancels Third Revised Sheet No. 12

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**DESIGNATION:** Medium Volume Firm (MVF)  
**CLASS OF SERVICE:** Residential, Commercial and Industrial

---

**1. Application**

Available in all service areas in South Dakota.

Applicable to firm natural gas service normally supplied through one meter at a single point of delivery for all residential, commercial, and industrial customers having peak day requirements of less than 2,000 therms. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>MVF</u>
Service Charge per Meter:	\$ 60.00
Non-Gas Commodity Charge per therm	\$ .07201

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1, (Sheet No. 3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
Gas Energy Efficiency Cost Recovery (Sheet No. 9)

N

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Minimum Charge**

The minimum charge is the service charge plus the commodity charge for all therms used.

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Cancels Fourth Revised Sheet No. 13

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**DESIGNATION:** Large Volume Firm (LVF)  
**CLASS OF SERVICE:** Commercial and Industrial

**1. Application**

Available in all service areas in South Dakota.

Applicable to all firm natural gas service normally supplied through one meter at a single point of delivery for all commercial and industrial customers having peak day requirements of 2,000 therms and higher. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>LVF</u>
Service Charge per Meter:	\$ 275.00
Commodity Charge (per therm):	\$ .03755

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1, (Sheet No.3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
Gas Energy Efficiency Cost Recovery (Sheet No. 9)

N

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Term of Contract**

The term of the contract will be 12 months or as mutually agreed to by Company and customer. Extension and cancellation is based on individual written contract.

**6. Minimum Charge**

The minimum charge is the service charge plus the commodity charge for all therms used.

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**DESIGNATION: Small Volume Interruptible (SVI)**  
**CLASS OF SERVICE: Commercial and Industrial**

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**1. Application**

Available in all service areas in South Dakota.

Applicable to all natural gas service required by commercial and industrial customers to be supplied on an interruptible basis, having peak day requirements of less than 2,000 therms. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u><b>SVI</b></u>
Service Charge per Meter:	\$ 60.00
Non-Gas Commodity Charge per therm:	\$ .07201

**3. Gas Cost Component**

Gas Cost Component – (C + E)

C – Commodity The gas cost component price is based on the daily gas commodity index prices, as described below, plus applicable interstate pipeline charges and fuel (retention) resulting in a delivered price. The daily delivered price will be multiplied by the daily metered usage. All usage from the daily metered readings within each billing period will be priced according to this method and billed to the customer monthly.

The source for the daily gas commodity costs is the Gas Daily index (publication). The Company will establish the pricing index points and transportation used at the start of the gas month. The Company may change these index point(s) at its discretion via a notice on the Company's electronic bulletin board. In the event market conditions result in MidAmerican incurring additional costs to secure supply for the Customer, MidAmerican reserves the right to pass these additional costs on to the Customer.

If any applicable index price is not published in Gas Daily for the applicable "Flow Date(s)," then the applicable index price will be used for the most recently published "Flow Date(s)" preceding the "Flow Date(s)" on which the applicable index price was not published.

E – Reconciliation factor is applicable for the billing period of March 1, 2006 through August 31, 2006, to either refund or collect the over/(under) reconciliation balances from September 1, 2005 through February 28, 2006. On and after September 1, 2006, the reconciliation factor will not be applicable.

Over or under cost recoveries incurred as a result of applying daily delivered prices described above to interruptible volumes will be credited or charged to the system gas price through the Cost of Purchased Gas Adjustment Clause 1, (Sheet No. 3).

**4. Clauses**

Above rate subject to: Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
Gas Energy Efficiency Cost Recovery (Sheet No. 9)

**5. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.





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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
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Cancels 8<sup>th</sup> Revised Sheet No. 15

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**DESIGNATION:** Large Volume Interruptible (LVI)  
**CLASS OF SERVICE:** Commercial and Industrial

**1. Application**

Available in all service areas in South Dakota.

Applicable to all natural gas service required by customers to be supplied on an interruptible basis, having peak day requirements of 2,000 therms and higher. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>LVI</u>
Service Charge per Meter:	\$ 275.00
Commodity Charge (per therm):	\$ .03755

**3. Gas Cost Component**

Gas Cost Component – (C + E)

C – Commodity The gas cost component price is based on the daily gas commodity index prices, as described below, plus applicable interstate pipeline charges and fuel (retention) resulting in a delivered price. The daily delivered price will be multiplied by the daily metered usage. All usage from the daily metered readings within each billing period will be priced according to this method and billed to the customer monthly.

The source for the daily gas commodity costs is the Gas Daily index (publication). The Company will establish the pricing index points and transportation used at the start of the gas month. The Company may change these index point(s) at its discretion via a notice on the Company's electronic bulletin board. In the event market conditions result in MidAmerican incurring additional costs to secure supply for the Customer, MidAmerican reserves the right to pass these additional costs on to the Customer.

If any applicable index price is not published in Gas Daily for the applicable "Flow Date(s)," then the applicable index price will be used for the most recently published "Flow Date(s)" preceding the "Flow Date(s)" on which the applicable index price was not published.

E – Reconciliation factor is applicable for the billing period of March 1, 2006 through August 31, 2006, to either refund or collect the over/(under) reconciliation balances from September 1, 2005 through February 28, 2006. On and after September 1, 2006, the reconciliation factor will not be applicable.

Over or under cost recoveries incurred as a result of applying daily delivered prices described above to interruptible volumes will be credited or charged to the system gas price through the Cost of Purchased Gas Adjustment Clause, (Sheet No. 3).

**4. Clauses**

Above rate subject to: Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
Gas Energy Efficiency Cost Recovery (Sheet No. 9)

**5. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

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SOUTH DAKOTA GAS TRANSPORTATION TARIFF  
SD P.U.C. Section No. III-A  
6<sup>th</sup> Revised Sheet No. 18  
Cancels 5<sup>th</sup> Revised Sheet No. 18

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**RATE DESIGNATION:** Monthly Metered Transportation Gas Pilot Project  
**CLASS OF SERVICE:** Gas Transportation Tariffs

---

For new Participants served on a firm service tariff and who did not give MidAmerican twelve (12) months notice of their intent to become transporters, Pool Operator will take assignment, through a pre-arranged release, of the applicable portion of MidAmerican's interstate pipeline capacity attributable to those participants. This pre-arranged release will be for the period of one year, and will be priced at MidAmerican's cost and under the terms and conditions of MidAmerican's contracts.

By taking assignment of MidAmerican's capacity under these terms, MidAmerican will not realize any stranded costs and therefore will not collect a Stranded Cost charge from existing participants or new participants. No release of interstate pipeline capacity will be made for Participants transferring from an interruptible service tariff.

Any identifiable additional costs associated with a Participant's return to System Supply Service will be allocated to the Participant causing such costs.

**XI. Administrative Charge:**

For the purpose of this Pilot, MidAmerican will replace existing application and monthly administrative fees with the following Administrative Charge. This Administrative Charge will apply to all Dth delivered to Participants.

The Administrative charge will be capped at \$0.25 per Dth, in accordance with the tariff, for the Pilot period. Annually, MidAmerican will true up the Administrative charges collected from the participants during the prior year, with the actual expenses incurred to administer the Pilot. The Administrative charge will be set at \$0.084 per Dth for the period September 1, 2006 through August 31, 2007.

**XII. Cash-out:**

Cash-out of the net monthly imbalances resulting from the differences between physical volumes delivered to MidAmerican's distribution system and actual consumption for all of the Participant's Meters will be done monthly between MidAmerican and the Participant's Pool Operator.

MidAmerican will have a separate Cash-out price for each cycle separate billing period, by delivery zone. The cash-out price will be comparable to market prices. MEC will net the Cash-out amounts for each cycle billing period and either bill or credit the Participant's Pool Operator once a month.

**XIII. Billing:**

Each Participant will pay MidAmerican distribution service charges for each Meter in accordance with applicable small transport (ST) or medium transport (MT) or large transport (LT) tariff (except application fee and Administrative charge). Participants will be subject to gas energy efficiency cost recovery as shown on Sheet No. 9.

Distribution service charges will be billed to each Participant. Meters will continue to be read on the regular cycle billing periods.

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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
4<sup>th</sup> Revised Sheet No. 28  
Cancels Third Revised Sheet No. 28

**DESIGNATION:** Small Seasonal Service (SSS)  
**CLASS OF SERVICE:** Commercial and Industrial

**1. Application**

Available in all service areas in South Dakota.

Applicable to all firm natural gas service normally supplied through one meter at a single point of delivery for all commercial and industrial customers. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>SSS</u>
Service Charge per Meter:	\$ 60.00
Non-Gas Commodity Charge per therm:	
Applicable to the nine monthly billing periods of April through December	\$ 0.05150
Applicable to the three monthly billing periods of January through March	\$ 0.10036

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1 (Sheet No. 3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
Gas Energy Efficiency Cost Recovery (Sheet No. 9)

N

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Minimum Charge**

The term of this agreement is one year or as agreed. The minimum charge is the service charge plus the commodity charge for all therms used.

**6. Terms of Tariff**

In the event the customer orders a disconnection and a reconnection of service at the same premises within a period of twelve (12) months, the Company will collect a turn-on charge.

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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
4<sup>th</sup> Revised Sheet No. 29  
Cancels Third Revised Sheet No. 29

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**DESIGNATION:** Large Seasonal Service (LSS)  
**CLASS OF SERVICE:** Commercial and Industrial

**1. Application**

Available in all service areas in South Dakota.

Applicable to all firm natural gas service normally supplied through one meter at a single point of delivery for all commercial and industrial customers. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>LSS</u>
Service Charge per Meter:	\$275.00
Non-Gas Commodity Charge per therm:	
Applicable to the nine monthly billing periods of April through December	\$ 0.02785
Applicable to the three monthly billing periods of January through March	\$ 0.05760

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1 (Sheet No. 3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
Gas Energy Efficiency Cost Recovery (Sheet No. 9)

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Minimum Charge**

The term of this agreement is one year or as agreed. The minimum charge is the service charge plus the commodity charge for all therms used.

**6. Terms of Tariff**

In the event the customer orders a disconnection and a reconnection of service at the same premises within a period of twelve (12) months, the Company will collect a turn-on charge.

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SOUTH DAKOTA GAS TRANSPORTATION TARIFF  
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**RATE DESIGNATION:** Interruptible Monthly Metered Transportation Gas Pilot Project  
**CLASS OF SERVICE:** Gas Transportation Tariffs

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**XVIII. Billing:**

Each Participant will pay MidAmerican distribution service charges for each Meter in accordance with applicable small transport (ST) medium transport (MT), or large transport (LT) tariff (except application fee and Administrative charge). Participants will be subject to gas energy efficiency cost recovery as shown on Sheet No. 9.

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Distribution service charges will be billed to each Participant. Meters will continue to be read on the regular cycle billing periods.

MidAmerican offers Participants three billing options for their Distribution service charges:

- 1) With a Participant's approval and the Pool Operator's request, MidAmerican will send a separate bill for each of the Participant's Meters to the Pool Operator within a few days of the Meter being read,
- 2) or MidAmerican will hold the separate bills as the Meters are being read and will send a single invoice to the Pool Operator monthly that summarizes the charges for each of the Participant's Meters. If the Pool Operator elects the summary bill, MidAmerican and Pool Operator will select a mutually acceptable billing cycle for MidAmerican to generate the summary bill,
- 3) or MidAmerican will send the monthly bill directly to the Participant within a few days of their meter being read.

Each Participant will continue to be billed the pipeline transition cost recover factor until it naturally expires.

Each Participant will pay the Swing Service charges and Administrative Charges described herein.

The Participant's Pool Operator will pay the Balancing Charges, Unauthorized Use, and Cash-out described herein.

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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
**First Revised Sheet No. 8**  
**Cancels** Original Issue Sheet Nos. 8-40

**DESIGNATION:**

**CLASS OF SERVICE:** *Gas Energy Efficiency Cost Recovery*

**RESERVED FOR FUTURE USE**

**1. Application**

*Applicable in all service areas in South Dakota and to all customers served under the Company's rate schedules except for daily metered gas transportation customers. Separate factors will be calculated for residential and for non-residential customers.*

**2. Purpose**

*This factor is designed to recover energy efficiency expenditures and related costs approved by the South Dakota Public Utilities Commission (Commission).*

**3. Implementation**

*Energy efficiency expenditures and related costs will be recovered each year. Energy efficiency charges will be added to energy charges for purpose of billing.*

**4. Determination of Factor**

*The cost recovery factors will be determined as follows:*

$$ECR_c = \frac{EXP_c + REL_c}{S_c} + \frac{RL_c}{S_c} + \frac{R_c}{S_c}$$

*Where:*

*ECR = Energy efficiency charge in cents per therm to be applied to customers served under each class (c) rate schedule.*

*c = Customer class, as follows:*

<i>Residential –</i>	<i>SVF and MVF</i>
<i>Non-Residential –</i>	<i>SVF, MVF, LVF, SVI, LVI, SSS, LSS, MMT, and MMT Interruptible</i>

*EXP = Energy efficiency expenditures by class as approved by the Commission.*

*REL = Commission approved related costs*

*S = Sales - Forecasted therm sales for the collection period.*

*RL = Revenue lost from implementation of energy efficiency program.*

*R = Reconciliation amount. The net of the approved expenditures plus related costs for the annual period less actual energy efficiency factor revenues collected.*

Date Filed: **April 16, 2007** September 22, 1995 Effective Date: **January 1, 2008** November 15, 1995

Issued By: **Naomi Czachura** James J. Howard  
Vice President Gas Administrative Services



MIDAMERICAN ENERGY COMPANY  
P.O. Box 778  
Sioux City, Iowa 51102

SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
**1<sup>st</sup> Revised Sheet No. 9**  
*Cancels* Original Issue Sheet Nos. **9 8-40**

---

**DESIGNATION:**

**CLASS OF SERVICE:**    *Gas Energy Efficiency Cost Recovery*

**RESERVED FOR FUTURE USE**

**5.    *Energy Efficiency Recovery Factors***

	<b><u>Residential</u></b>	<b><u>Non-Residential</u></b>
On-going MidAmerican Costs	<b>\$0.01650/therm</b>	<b>\$0.00556/therm</b>

**6.    *Reconciliation***

*A reconciliation will be filed annually. The energy efficiency costs recovered from customers during the prior period will be compared to those which were allowed to be recovered. Any over/under collection, and any change in forecast sales, will be used to adjust the current energy efficiency cost recovery factors.*

---

Date Filed: **April 16, 2007** ~~September 22, 1995~~      Effective Date: **January 1, 2008** ~~November 15, 1995~~

Issued By: **Naomi Czachura** ~~James J. Howard~~  
Vice President ~~Gas Administrative Services~~



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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
**1<sup>st</sup> Revised Sheet No. 10**  
***Cancels*** Original Issue Sheet Nos. 8-10

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**DESIGNATION:**  
**CLASS OF SERVICE:**

D

RESERVED FOR FUTURE USE

---

Date Filed: **April 16, 2007** ~~September 22, 1995~~      Effective Date: **January 1, 2008** ~~November 15, 1995~~

Issued By: **Naomi Czachura** ~~James J. Howard,~~  
Vice President ~~Gas Administrative Services~~



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P.O. Box 778  
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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
~~4<sup>th</sup> Third Revised Sheet No. 11~~  
Cancels ~~Third Second Revised Sheet No. 11~~

**DESIGNATION:** Small Volume Firm (SVF)  
**CLASS OF SERVICE:** Residential, Commercial and Industrial

**1. Application**

Available in all service areas in South Dakota.

Applicable to all firm natural gas service normally supplied through one meter at a single point of delivery for all residential, commercial, and industrial customers having peak day requirements of less than 500 therms. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>SVF</u>
Service Charge per Meter:	\$ 8.00
Non-Gas Commodity Charge:	
First 250 therms per therm	\$ .18125
Balance per therm	\$ .13191

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1, (Sheet No. 3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
***Gas Energy Efficiency Cost Recovery (Sheet No. 9)***

N

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Minimum Charge**

The minimum charge is the service charge plus the commodity charge for all therms used.

Date Filed: **April 16, 2007** ~~August 5, 2004~~

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Issued By: **Naomi Czachura** ~~James J. Howard~~  
Vice President



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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
~~4<sup>th</sup> Third Revised Sheet No. 12~~  
Cancels ~~Third Second Revised Sheet No. 12~~

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**DESIGNATION:** Medium Volume Firm (MVF)  
**CLASS OF SERVICE:** Residential, Commercial and Industrial

---

**1. Application**

Available in all service areas in South Dakota.

Applicable to firm natural gas service normally supplied through one meter at a single point of delivery for all residential, commercial, and industrial customers having peak day requirements of less than 2,000 therms. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>MVF</u>
Service Charge per Meter:	\$ 60.00
Non-Gas Commodity Charge per therm	\$ .07201

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1, (Sheet No. 3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
**Gas Energy Efficiency Cost Recovery (Sheet No. 9)**

N

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Minimum Charge**

The minimum charge is the service charge plus the commodity charge for all therms used.

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Issued By: **Naomi Czachura** ~~James J. Howard~~  
Vice President



MIDAMERICAN ENERGY COMPANY  
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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
**5<sup>th</sup>** ~~Fourth~~ Revised Sheet No. 13  
Cancels **Fourth** ~~Third~~ Revised Sheet No. 13

---

**DESIGNATION:** Large Volume Firm (LVF)  
**CLASS OF SERVICE:** Commercial and Industrial

**1. Application**

Available in all service areas in South Dakota.

Applicable to all firm natural gas service normally supplied through one meter at a single point of delivery for all commercial and industrial customers having peak day requirements of 2,000 therms and higher. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>LVF</u>
Service Charge per Meter:	\$ 275.00
Commodity Charge (per therm):	\$ .03755

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1, (Sheet No.3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
**Gas Energy Efficiency Cost Recovery (Sheet No. 9)**

N

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Term of Contract**

The term of the contract will be 12 months or as mutually agreed to by Company and customer. Extension and cancellation is based on individual written contract.

**6. Minimum Charge**

The minimum charge is the service charge plus the commodity charge for all therms used.

---

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Issued By: **Naomi Czachura** ~~James J. Howard~~  
Vice President



MIDAMERICAN ENERGY COMPANY  
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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
9<sup>th</sup> 8<sup>th</sup> Revised Sheet No. 14  
Cancels 8<sup>th</sup> 7<sup>th</sup> Revised Sheet No. 14

**DESIGNATION:** Small Volume Interruptible (SVI)  
**CLASS OF SERVICE:** Commercial and Industrial

**1. Application**

Available in all service areas in South Dakota.

Applicable to all natural gas service required by commercial and industrial customers to be supplied on an interruptible basis, having peak day requirements of less than 2,000 therms. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<b>SVI</b>
Service Charge per Meter:	\$ 60.00
Non-Gas Commodity Charge per therm:	\$ .07201

**3. Gas Cost Component**

Gas Cost Component – (C + E)

C – Commodity The gas cost component price is based on the daily gas commodity index prices, as described below, plus applicable interstate pipeline charges and fuel (retention) resulting in a delivered price. The daily delivered price will be multiplied by the daily metered usage. All usage from the daily metered readings within each billing period will be priced according to this method and billed to the customer monthly.

The source for the daily gas commodity costs is the Gas Daily index (publication). The Company will establish the pricing index points and transportation used at the start of the gas month. The Company may change these index point(s) at its discretion via a notice on the Company's electronic bulletin board. In the event market conditions result in MidAmerican incurring additional costs to secure supply for the Customer, MidAmerican reserves the right to pass these additional costs on to the Customer.

If any applicable index price is not published in Gas Daily for the applicable "Flow Date(s)," then the applicable index price will be used for the most recently published "Flow Date(s)" preceding the "Flow Date(s)" on which the applicable index price was not published.

E – Reconciliation factor is applicable for the billing period of March 1, 2006 through August 31, 2006, to either refund or collect the over/(under) reconciliation balances from September 1, 2005 through February 28, 2006. On and after September 1, 2006, the reconciliation factor will not be applicable.

Over or under cost recoveries incurred as a result of applying daily delivered prices described above to interruptible volumes will be credited or charged to the system gas price through the Cost of Purchased Gas Adjustment Clause 1, (Sheet No. 3).

**4. Clauses**

Above rate subject to: Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
**Gas Energy Efficiency Cost Recovery (Sheet No. 9)**

N

**5. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

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Issued ~~By~~: Naomi G. Czachura,  
Vice President

Effective on less than 30 days notice by authority of the



Public Utilities Commission of South Dakota dated 2/28/06





MIDAMERICAN ENERGY COMPANY  
P.O. Box 778  
Sioux City, Iowa 51102

SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
9<sup>th</sup> 8<sup>th</sup> Revised Sheet No. 15  
Cancels 8<sup>th</sup> 7<sup>th</sup> Revised Sheet No. 15

---

**DESIGNATION:** Large Volume Interruptible (LVI)  
**CLASS OF SERVICE:** Commercial and Industrial

---

**1. Application**

Available in all service areas in South Dakota.

Applicable to all natural gas service required by customers to be supplied on an interruptible basis, having peak day requirements of 2,000 therms and higher. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>LVI</u>
Service Charge per Meter:	\$ 275.00
Commodity Charge (per therm):	\$ .03755

**3. Gas Cost Component**

Gas Cost Component – (C + E)

C – Commodity The gas cost component price is based on the daily gas commodity index prices, as described below, plus applicable interstate pipeline charges and fuel (retention) resulting in a delivered price. The daily delivered price will be multiplied by the daily metered usage. All usage from the daily metered readings within each billing period will be priced according to this method and billed to the customer monthly.

The source for the daily gas commodity costs is the Gas Daily index (publication). The Company will establish the pricing index points and transportation used at the start of the gas month. The Company may change these index point(s) at its discretion via a notice on the Company's electronic bulletin board. In the event market conditions result in MidAmerican incurring additional costs to secure supply for the Customer, MidAmerican reserves the right to pass these additional costs on to the Customer.

If any applicable index price is not published in Gas Daily for the applicable "Flow Date(s)," then the applicable index price will be used for the most recently published "Flow Date(s)" preceding the "Flow Date(s)" on which the applicable index price was not published.

E – Reconciliation factor is applicable for the billing period of March 1, 2006 through August 31, 2006, to either refund or collect the over/(under) reconciliation balances from September 1, 2005 through February 28, 2006. On and after September 1, 2006, the reconciliation factor will not be applicable.

Over or under cost recoveries incurred as a result of applying daily delivered prices described above to interruptible volumes will be credited or charged to the system gas price through the Cost of Purchased Gas Adjustment Clause, (Sheet No. 3).

**4. Clauses**

Above rate subject to: Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
**Gas Energy Efficiency Cost Recovery (Sheet No. 9)**

**5. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

---

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Effective Date: **January 1, 2008** ~~March 1, 2006~~

Issued By: Naomi G. Czachura  
Vice President

~~Effective on less than 30 days notice by authority of the~~



Public Utilities Commission of South Dakota dated 2/28/06



MIDAMERICAN ENERGY COMPANY  
P.O. Box 778  
Sioux City, Iowa 51102

SOUTH DAKOTA GAS TRANSPORTATION TARIFF  
SD P.U.C. Section No. III-A  
6<sup>th</sup> 5<sup>th</sup> Revised Sheet No. 18  
Cancels 5<sup>th</sup> 4<sup>th</sup> Revised Sheet No. 18

---

**RATE DESIGNATION:** Monthly Metered Transportation Gas Pilot Project  
**CLASS OF SERVICE:** Gas Transportation Tariffs

---

For new Participants served on a firm service tariff and who did not give MidAmerican twelve (12) months notice of their intent to become transporters, Pool Operator will take assignment, through a pre-arranged release, of the applicable portion of MidAmerican's interstate pipeline capacity attributable to those participants. This pre-arranged release will be for the period of one year, and will be priced at MidAmerican's cost and under the terms and conditions of MidAmerican's contracts.

By taking assignment of MidAmerican's capacity under these terms, MidAmerican will not realize any stranded costs and therefore will not collect a Stranded Cost charge from existing participants or new participants. No release of interstate pipeline capacity will be made for Participants transferring from an interruptible service tariff.

Any identifiable additional costs associated with a Participant's return to System Supply Service will be allocated to the Participant causing such costs.

**XI. Administrative Charge:**

For the purpose of this Pilot, MidAmerican will replace existing application and monthly administrative fees with the following Administrative Charge. This Administrative Charge will apply to all Dth delivered to Participants.

The Administrative charge will be capped at \$0.25 per Dth, in accordance with the tariff, for the Pilot period. Annually, MidAmerican will true up the Administrative charges collected from the participants during the prior year, with the actual expenses incurred to administer the Pilot. The Administrative charge will be set at \$0.084 per Dth for the period September 1, 2006 through August 31, 2007.

**XII. Cash-out:**

Cash-out of the net monthly imbalances resulting from the differences between physical volumes delivered to MidAmerican's distribution system and actual consumption for all of the Participant's Meters will be done monthly between MidAmerican and the Participant's Pool Operator.

MidAmerican will have a separate Cash-out price for each cycle separate billing period, by delivery zone. The cash-out price will be comparable to market prices. MEC will net the Cash-out amounts for each cycle billing period and either bill or credit the Participant's Pool Operator once a month.

**XIII. Billing:**

Each Participant will pay MidAmerican distribution service charges for each Meter in accordance with applicable small transport (ST) or medium transport (MT) or large transport (LT) tariff (except application fee and Administrative charge). ***Participants will be subject to gas energy efficiency cost recovery as shown on Sheet No. 9.***

Distribution service charges will be billed to each Participant. Meters will continue to be read on the regular cycle billing periods.

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**Date Filed** Issued: **April 16, 2007** July 25, 2006      **Effective Date:** **January 1, 2008** September 1, 2006

Issued ~~By~~ Naomi Czachura  
Vice President

N  
N



MIDAMERICAN ENERGY COMPANY  
P.O. Box 778  
Sioux City, Iowa 51102

SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
~~4<sup>th</sup>~~ Third Revised Sheet No. 28  
Cancels ~~Third~~ Second Revised Sheet No. 28

---

**DESIGNATION:** Small Seasonal Service (SSS)  
**CLASS OF SERVICE:** Commercial and Industrial

---

**1. Application**

Available in all service areas in South Dakota.

Applicable to all firm natural gas service normally supplied through one meter at a single point of delivery for all commercial and industrial customers. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>SSS</u>
Service Charge per Meter:	\$ 60.00
Non-Gas Commodity Charge per therm:	
Applicable to the nine monthly billing periods of April through December	\$ 0.05150
Applicable to the three monthly billing periods of January through March	\$ 0.10036

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1 (Sheet No. 3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
***Gas Energy Efficiency Cost Recovery (Sheet No. 9)***

N

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Minimum Charge**

The term of this agreement is one year or as agreed. The minimum charge is the service charge plus the commodity charge for all therms used.

**6. Terms of Tariff**

In the event the customer orders a disconnection and a reconnection of service at the same premises within a period of twelve (12) months, the Company will collect a turn-on charge.

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Date Filed: **April 16, 2007** ~~June 1, 2004~~

Effective Date: **January 1, 2008** ~~November 29, 2004~~

Issued By: **Naomi Czachura** James J. Howard  
Vice President



MIDAMERICAN ENERGY COMPANY  
P.O. Box 778  
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SOUTH DAKOTA GAS SALES TARIFF  
SD P.U.C. Section No. III  
~~4<sup>th</sup> Third Revised Sheet No. 29~~  
Cancels ~~Third Second Revised Sheet No. 29~~

---

**DESIGNATION:** Large Seasonal Service (LSS)  
**CLASS OF SERVICE:** Commercial and Industrial

**1. Application**

Available in all service areas in South Dakota.

Applicable to all firm natural gas service normally supplied through one meter at a single point of delivery for all commercial and industrial customers. Not applicable for resale, standby or supplemental service. The Company's service rules and regulations shall apply.

**2. Monthly Rate**

	<u>LSS</u>
Service Charge per Meter:	\$275.00
Non-Gas Commodity Charge per therm:	
Applicable to the nine monthly billing periods of April through December	\$ 0.02785
Applicable to the three monthly billing periods of January through March	\$ 0.05760

**3. Clauses**

Above rate subject to: Cost of Purchased Gas Adjustment Clause 1 (Sheet No. 3).  
Tax Adjustment Clause (Sheet No. 6).  
Btu Adjustment Clause (Sheet No. 7).  
***Gas Energy Efficiency Cost Recovery (Sheet No. 9)***

**4. Bill Payment Provision**

The rate is net. A late payment charge of 1.5% per month shall be added to the past due amount if the bill is not paid by the due date.

**5. Minimum Charge**

The term of this agreement is one year or as agreed. The minimum charge is the service charge plus the commodity charge for all therms used.

**6. Terms of Tariff**

In the event the customer orders a disconnection and a reconnection of service at the same premises within a period of twelve (12) months, the Company will collect a turn-on charge.

---

Date Filed: **April 16, 2007** ~~June 1, 2004~~

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Issued By: **Naomi Czachura** James J. Howard  
Vice President



MIDAMERICAN ENERGY COMPANY  
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SOUTH DAKOTA GAS TRANSPORTATION TARIFF  
SD P.U.C. Section No. III-A  
**1<sup>st</sup> Revised Sheet No. 55**  
*Cancels* Original Issue Sheet No. 55

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**RATE DESIGNATION:** Interruptible Monthly Metered Transportation Gas Pilot Project  
**CLASS OF SERVICE:** Gas Transportation Tariffs

---

**XVIII. Billing:**

Each Participant will pay MidAmerican distribution service charges for each Meter in accordance with applicable small transport (ST) medium transport (MT), or large transport (LT) tariff (except application fee and Administrative charge). ***Participants will be subject to gas energy efficiency cost recovery as shown on Sheet No. 9.***

N  
N

Distribution service charges will be billed to each Participant. Meters will continue to be read on the regular cycle billing periods.

MidAmerican offers Participants three billing options for their Distribution service charges:

- 1) With a Participant's approval and the Pool Operator's request, MidAmerican will send a separate bill for each of the Participant's Meters to the Pool Operator within a few days of the Meter being read,
- 2) or MidAmerican will hold the separate bills as the Meters are being read and will send a single invoice to the Pool Operator monthly that summarizes the charges for each of the Participant's Meters. If the Pool Operator elects the summary bill, MidAmerican and Pool Operator will select a mutually acceptable billing cycle for MidAmerican to generate the summary bill,
- 3) or MidAmerican will send the monthly bill directly to the Participant within a few days of their meter being read.

Each Participant will continue to be billed the pipeline transition cost recover factor until it naturally expires.

Each Participant will pay the Swing Service charges and Administrative Charges described herein.

The Participant's Pool Operator will pay the Balancing Charges, Unauthorized Use, and Cash-out described herein.

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**Date Filed** Issued: **April 16, 2007** ~~June 3, 2005~~ Effective **Date:** **January 1, 2008** ~~September 1, 2005~~

Issued ~~By:~~ **Naomi Czachura** James J. Howard  
Vice President

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**DESIGNATION: Electric Energy Efficiency Cost Recovery****1. Application**

Applicable in all service areas in South Dakota and to all customers served under the Company's rate schedules except for lighting customers. Separate factors will be calculated for residential and for non-residential customers.

**2. Purpose**

This factor is designed to recover energy efficiency expenditures and related costs approved by the South Dakota Public Utilities Commission (Commission).

**3. Implementation**

Energy efficiency expenditures and related costs will be recovered each year. Energy efficiency charges will be added to energy charges for purpose of billing.

**4. Determination of factor**

The cost recovery factors will be determined as follows:

$$ECR_c = \frac{EXP_c + REL_c}{S_c} + \frac{R_c}{S_c}$$

Where:

ECR = Energy efficiency charge in cents per kWh to be applied to customers served under each class (c) rate schedule.

c = Customer class, as follows:

Residential – RBD, RWD, RSD, RED and RTD  
Non-Residential – GBD, GED, GDD, GPD, GHD, GUD, GTD, GSD, GWD, LLD,  
ALD, LPD, APD, LED, LHD, LTD/LOD, LVD/LRD, LDP/LDO,  
ABD and ATD

EXP = Energy efficiency expenditures by class as approved by the Commission.

REL = Commission approved related costs

S = Sales - Forecasted kWh sales for the recollection period.

R = Reconciliation amount. The net of the approved expenditures plus related costs for the annual period less actual energy efficiency factor revenues collected.



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
Original Sheet No. C-3a

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**DESIGNATION: Electric Energy Efficiency Cost Recovery**

**5. Energy Efficiency Recovery Factors**

	<u>Residential</u>	<u>Non-Residential</u>
On-going MidAmerican Costs	\$0.00064/kWh	\$0.00020/kWh

**6. Reconciliation**

A reconciliation will be filed annually. The energy efficiency costs recovered from customers during the prior period will be compared to those which were allowed to be recovered. Any over/under collection, and any change in forecast sales, will be used to adjust the current energy efficiency cost recovery factors.

---

Date Filed: April 16, 2007

Effective: January 1, 2008

Issued By: Naomi Czachura  
Vice President

**Class of Service** Residential, Base Use - Price Schedule RBD**Available** In the Company's South Dakota electric service area.**Applicable** The residential electric base use service is:

- Applicable to single family dwellings (including incidental farm electric usage supplied through the same meter).
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service.

**Price** The monthly price schedule for electric base use is:

RBD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$7.00	\$7.00
First 1,000 kWh @	\$0.0634	\$0.0612
Additional kWh @	\$0.0610	\$0.0490

**Seasonable Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

**Class of Service** Residential, Electric Base Use with Electric Water Heating - Price Schedule RWD

**Available** In the Company's South Dakota electric service area.

**Applicable** The residential electric base use with electric water heating service is:

- Applicable to single family dwellings (including incidental farm usage supplied through the same meter) with an electric water heater.
- Water heater must conform to MidAmerican Energy specifications as shown on Sheet No. D-II and be in regular use for supplying the domestic hot water requirements of the residence.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.

**Price** The monthly price schedule for base use with electric water heating is:

RWD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$7.00	\$7.00
First 1,000 kWh @	\$0.0634	\$0.0497
Additional kWh @	\$0.0610	\$0.0490

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

**Class of Service** Residential, Electric Space Heating - Price Schedule RSD

**Available** In the Company's South Dakota electric service area.

**Applicable** The residential electric space heating service is:

- Applicable to single family dwellings (including incidental farm usage supplied through the same meter) with electric space heating.
- Electric space heating devices must conform to MidAmerican Energy specifications, as shown on Section 3, Sheet No. D-III, be in regular use for supplying the domestic space heating requirements of the residence, and be the preponderant source of heat for the residence.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.

**Price** The monthly price schedule for electric space heating use is:

RSD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$7.00	\$7.00
First 1,000 kWh @	\$0.0634	\$0.0612
Additional kWh	\$0.0610	\$0.0180

**Seasonal Provision**

Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments**

The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment**

Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms**

Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a later payment charge of 1.5 percent of the unpaid balance is added to the next bill.

**Class of Service** Residential, All Electric - Price Schedule RED**Available** In the Company's South Dakota electric service area.**Applicable** The residential all electric service is:

- Applicable to single family dwellings (including incidental farm usage supplied through the same meter) with electric space and water heating.
- Electric space heating devices must conform to MidAmerican Energy specifications, as shown on Section No. 3, Sheet No. D-III, be in regular use for supplying the domestic space heating requirements of the residence, and be the preponderant source of heat for the residence.
- Water heater must conform to MidAmerican Energy specifications, as shown on Section No. 3, Sheet D-11, and be in regular use for supplying the domestic hot water requirements of the residence.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.

**Price** The monthly price schedule for all electric use is:

RED Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$7.00	\$7.00
First 1,000 kWh @	\$0.0634	\$0.0497
Additional kWh	\$0.0610	\$0.0180

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
1<sup>st</sup> Revised Sheet No. D-5a  
Canceling Original Sheet No. D-5a

**Residential, Time-of-Use - Price Schedule RTD, continued**

<b>Peak Periods</b>	All time occurring after 12:00 p.m. (noon) but before 7:00 p.m. each weekday, Monday through Friday excluding specified holidays.
<b>Off Peak Periods</b>	All time occurring before 12:00 p.m. (noon) and after 7:00 p.m. each weekday, Monday through Friday, and all day each Saturday, Sunday and specified holidays, during every monthly billing period of each year.
<b>Specified Holidays</b>	Specified holidays are identified as: <ul style="list-style-type: none"><li>• Independence Day</li><li>• Labor Day</li></ul>
<b>Price Adjustments</b>	The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid, in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

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**Class of Service** General Service, Base - Energy Only Metering - Price Schedule GBD

**Available** In the Company's South Dakota electric service area.

**Applicable** The general service electric base energy only metering service is:

- Applicable to all electric service required on premises.
- Not applicable to customers with demands greater than 200 kW.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Applications.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.

**Price** The monthly price schedule for base energy only metering is:

GBD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$10.00	\$10.00
First 4,000 kWh @	\$0.0885	\$0.0842
Additional kWh @	\$0.0630	\$0.0554

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet No. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



**Class of Service** General Service, Electric Heat - Energy Only Metering - Price Schedule GED

**Available** In the Company's South Dakota electric service area.

**Applicable** The general service electric heat-energy only metering service is:

- Applicable to customers with electric space heating.
- Not applicable to customers with demands greater than 200 kW.
- Electric space heating devices must conform to MidAmerican Energy specifications, see Section 3, Sheet No. D-IV, and be the preponderant source of heat for the premises, and where at least 50 percent of the electric load of the premise is located inside of the building or buildings with electric space heating.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.

**Price** The monthly price schedule for electric heat - energy only metering is:

GED Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$10.00	\$10.00
First 4,000 kWh @	\$0.0791	\$0.0472
Next 4,000 kWh @	\$0.0791	\$0.0472
Additional kWh @	\$0.0791	\$0.0472

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Class of Service** General Service, Base - Demand Metered - Price Schedule GDD

**Available** In the Company's South Dakota electric service area.

**Applicable** The general service base demand metered service is:

- Applicable to all electric service required on premises.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.
- Not applicable to customers whose demand exceeds 200 kW.

**Price** The monthly price schedule for base demand metered use is:

GDD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$80.00	\$80.00
First 250 kWh per kW of demand @	\$0.0620	\$0.0530
Next 150 kWh per kW of demand @	\$0.0220	\$0.0210
Additional kWh @	\$0.0105	\$0.0105

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Demand** The kW as shown by or computed from the readings of the Company's demand meter, determined to the nearest kW, but not less than 20 kW.

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Class of Service** General Service, Base - Primary Voltage - Price Schedule GPD

**Available** In the Company's South Dakota electric service area.

**Applicable** The general service base primary metered service is:

- Applicable to all electric service required on premises.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.
- Not applicable to customers whose demand exceeds 200 kW.

**Price** The monthly price schedule for base primary metered is:

<b>GPD Price Schedule</b>	<b>Summer per kWh</b>	<b>Winter per kWh</b>
Service Charge	\$200.00	\$200.00
First 250 kWh per kW of demand @	\$0.0469	\$0.0404
Next 150 kWh per kW of demand @	\$0.0216	\$0.0216
Additional kWh @	\$0.0103	\$0.0103
Transformer Ownership Credit	\$0.30/kW	\$0.30/kW

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Demand** The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW, but not less than 20 kW.

**Transformer Ownership Credit** Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.

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Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



MIDAMERICAN ENERGY COMPANY  
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Section No. 3  
1<sup>st</sup> Revised Sheet No. D-15a  
Canceling Original Sheet No. D-15a

**General Service, Electric Heat - Demand Metered - Price Schedule GHD, continued**

**Price Adjustments**     The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment**     Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms**     Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



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**General Service, Time-of-Use at Secondary Voltage - Price Schedule GUD, continued**

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September billing periods
- Winter - October through May billing periods

**Time-of-Use Periods**

Peak Periods	All time occurring after 12:00 p.m. (noon) but before 7:00 p.m. each weekday, Monday through Friday, excluding specified holidays
Off-Peak Periods	All hours not designated as on-peak hours.
Specified Holidays	New Year's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

**Character** Alternating current: 60 Hz; single or three phase, at secondary voltages offered by the Company, as further described in the Company's Rules and Regulations and Electric Rate Application.

**Demand** The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW.

**Reactive Demand** The kilovar as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.



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**General Service, Time-of-Use at Primary Voltage - Price Schedule GTD, continued**

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September billing periods
- Winter - October through May billing periods

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Time-of-Use Periods**

Peak Periods	All time occurring after 12:00 p.m. (noon) but before 7:00 p.m. each weekday, Monday through Friday, excluding specified holidays.
Off-Peak Periods	All hours not designated as on-peak hours.
Specified Holidays	New Year's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

**Character** Alternating current: 60 Hz; single or three phase, at primary voltages offered by the Company, as further described in the Company's Rules and Regulations and Electric Rate Application.

**Demand** The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW.

**Class of Service** General Service, Separately Metered Electric Space Heating - Price Schedule GSD

**Available** In the Company's South Dakota electric service area.

**Applicable** The small general service separately metered electric space heating service is:

- Applicable to all customer classes with electric space heating supplied at nominal 240 volts through one separate meter at a single point of delivery to a solidly connected, permanently installed, load controlled electric heating installation.
- Heat pump, and any other electric space heating devices must conform to MidAmerican Energy specifications and be the customer's principal source of heating and in regular use.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service.

**Price** The monthly price schedule for separately metered electric space heating is:

GSD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$8.50	\$8.50
All kWh @	\$0.0610	\$0.0180

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.





**Class of Service** General Service, Separately Metered Electric Water Heating - Price Schedule GWD

**Available** In the Company's South Dakota electric service area.

**Applicable** The small general service separately metered electric water heating service is:

- Applicable to 240 volt single-phase electric water heating service only. Energy for other purposes shall be metered through a separate meter.
- Water heater must conform to MidAmerican Energy specifications.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.

**Price** The monthly price schedule for separately metered electric water heating is:

GWD Price Schedule	Energy Charge per kWh
Service Charge	\$6.50
All kWh @	\$0.0300

**Seasonal Provision** There is no seasonal provision for this price schedule.

**Specifications** Each element of a two-unit heater shall be controlled by a thermostat with the thermostats so interlocked that both elements cannot operate simultaneously, excepting where both elements combined do not exceed a 5500 watt rating limit for a single element heater.

**Restrictions** The small general service separately metered electric water heating service is restricted to existing participants. The Company intends to discontinue this service with the filing of its next general rate case.

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Utilities Commission associated with the Company's energy efficiency programs.

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**Large General Service, Base Use at Secondary Voltage - Price Schedules LLD and ALD,  
continued**

**Reactive Demand**     The kVAR as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.

**Minimum Bill**         The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment.

**Price Adjustments**     The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment**        Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms**        Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
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Section No. 3  
1<sup>st</sup> Revised Sheet No. D-22a  
Canceling Original Sheet No. D-22a

**Large General Service, Base Use at Primary Voltage - Price Schedules LPD and APD,  
continued**

**Demand** The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW, but not less than 200 kW.

**Reactive Demand** The kVAR as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.

**Minimum Bill** The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment, less the transformer ownership credit.

**Transformer Ownership Credit** Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
1<sup>st</sup> Revised Sheet Nos. D-23a  
Canceling Original Sheet Nos. D-23a

**Large General Service with Electric Space Heating at Secondary Voltage - Price Schedule  
LED, continued**

<b>Demand</b>	The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW, but not less than 200 kW.	
<b>Reactive Demand</b>	The kVAR as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.	
<b>Minimum Bill</b>	The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment.	
<b>Price Adjustments</b>	The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.	N           N
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.	
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.	

Date Filed: April 16, 2007

Effective: January 1, 2008

Issued by: Naomi G. Czachura  
Vice President



**Large General Service with Electric Space Heating at Primary Voltage - Price Schedule**  
**LHD continued**

**Reactive Demand**      The kVAR as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.

**Minimum Bill**      The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment, less the transformer ownership credit.

**Transformer Ownership Credit**      Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.

**Price Adjustments**      The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment**      Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms**      Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



MIDAMERICAN ENERGY COMPANY  
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Section No. 3  
1<sup>st</sup> Revised Sheet Nos. D-26b  
Canceling Original Sheet Nos. D-26b

**Large General Service, Time-of-Use at Secondary Voltage - Price Schedule LTD/LOD,  
continued**

<b>Price Adjustments</b>	The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.	N           N
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.	
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.	



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
1<sup>st</sup> Revised Sheet No. D-27b  
Canceling Original Sheet No. D-27b

**Large General Service, Time-of-Use at Primary Voltage - Price Schedule LVD/LRD,  
continued**

**Transformer Ownership Credit**      Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.

**Price Adjustments**      The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment**      Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms**      Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



**Large General Service, Time-of-Use at Transmission Voltage - Price Schedule LDP/LDO,  
continued**

<b>Minimum Bill</b>	The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment, less the transformer ownership credit.	
<b>Transformer Ownership Credit</b>	Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.	
<b>Price Adjustments</b>	The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.	N           N
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.	
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.	



**Class of Service** Other Electric Service to Public Authorities - Water Pumping - Price Schedule ABD

**Available** In the Company's South Dakota electric service area.

**Applicable** To all electric service required for water and sewage pumping and treatment plants, by municipal, county, state and federal governments or agencies, subject to applicable terms and conditions of the Company's Rules and Regulations. Not applicable to standby, supplementary, or temporary service.

**Prices**

ABD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$10.00	\$10.00
All kWh @	\$0.0565	\$0.0506

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September billing periods
- Winter - October through May billing periods

**Character** Alternating current; 60 Hz, single or three phase, at nominal voltages offered by the Company, as further described in Company's Rules and Regulations.

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

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**Class of Service** Other Electric Service to Public Authorities - Base - Energy Only Metering - Price Schedule ATD

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**Available** In the Company's South Dakota electric service area.

**Applicable** The public authorities electric base energy only metering service is:

- Applicable to all electric service required on premises.
- Not applicable to customers with demands greater than 200 kW.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Applications.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.

**Price** The monthly price schedule for base energy only metering is:

ATD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$10.00	\$10.00
First 4,000 kWh @	\$0.0620	\$0.0575
Additional kWh @	\$0.0470	\$0.0470

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment and electric energy efficiency cost recovery are calculated as shown on Sheet No. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.

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**Tax Adjustment** Service provided according to this price schedule is subject to stat and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



Section No. 3  
Original Sheet No. D-48

**APPLICABLE:**

**CHARACTER:**

**NET MONTHLY RATE:**

**Curtailment Credit:**

Annual Credit per kW of curtailable load to be offered:

**\$32.93/kW (year-to-year contract)**



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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

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If a customer's failure to curtail to the firm power level when requested results in a Company purchase of capacity, as required by the Mid-Continent Area Power Pool Agreement or superseding agreement with a Reliability Coordinator such as Midwest Reliability Organization, herein collectively referred to as MAPP, the customer will reimburse the Company for a proportionate share of this capacity. This amount will not exceed the customer's total annual credit for curtailable load.

In the event of a failure of the customer's standby generating equipment, or other unanticipated non-recurring condition (excluding the customer's failure to reduce production levels), the Company, at its sole discretion, may waive the customer's proportionate share of a capacity purchase as required by MAPP. The customer shall notify the Company immediately by telephone, e-mail, or facsimile after obtaining knowledge of a condition contemplated by this paragraph.

Any payment made to the Company for a customer's proportionate share of a capacity purchase as required by MAPP, or any waiver of such payment, shall not be construed as giving the customer the right to exceed the firm power level during any subsequent curtailment periods.

Customers may request a change in the firm power level annually. In addition, on 24 hours' notice, customers may cancel service under this rider. However, the customer will be responsible for its allocated share of any MAPP capacity purchases incurred prior to the effective time of the service cancellation and shall reimburse the Company for all credits received during the calendar year.

Customers shall notify the Company immediately upon obtaining knowledge of a need to increase its firm power level. If the requested increase in the firm power level is a result of an increase in the customer's expected load at time of system peak, the request will be automatically accommodated. If the requested increase in the firm power level is the result of the customer's desire to transfer load from its curtailable load to its firm power level, the Company will accommodate the request only if capacity is available.



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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

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For purposes of verifying the customer's curtailable load, the customer's expected load at time of system peak and firm power level will be reviewed annually by the Company. Participating customers are required to have access to MidAmerican's automated load management software system to facilitate performance verification. If the customer failed to curtail to the firm power level as required during either of the two prior summer seasons, the Company shall set the minimum firm power level at an amount equal to the customer's highest actual demand during a curtailment period in the two prior summer seasons.

During the customer's first summer period on this rider, the expected load at time of system peak and firm power level may be adjusted at the end of any billing period by mutual agreement of the Company and the customer.

**Tax Adjustment:**

The rate is subject to the Tax Adjustment Clause; see Sheet No. C-2.

**STANDBY GENERATOR PROVISION:**

Customers who have standby generation may operate that generation during the specified curtailment periods as a means of attaining the customer's specified firm power level. The standby generator must not be operated in parallel with Company generation. Standby generation is to be run only in emergencies, for testing, or during curtailment periods.



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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

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**CURTAILMENT PERIODS:**

The Company may establish a curtailment period by providing notice to the customer that curtailment is required, whenever at the Company's discretion such curtailment may be appropriate.

If a curtailment is to be ordered for the purpose of avoiding MAPP capacity purchases related to peak system loads, the Company may establish the curtailment period by giving a 30-minute notice to the customer, provided the customer was alerted to the possibility of curtailment 12 or more hours prior to the beginning of the curtailment period. Otherwise, the customer may require the Company to provide 2-hour notice for the purpose of avoiding MAPP capacity purchases. The curtailment period shall continue until the Company has provided specific notice of its termination, or a maximum of 6 hours, whichever is shorter. The maximum number of curtailment periods for the purpose of avoiding MAPP capacity purchases related to peak system loads (summer period only, June through September) during a calendar year will be 16.

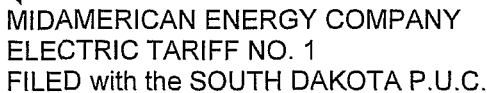
If a curtailment is to be ordered because of operating conditions, the Company will endeavor to provide as much advance notice as practicable under the circumstances, but may establish the curtailment period immediately upon notice. In such a case, the curtailment would continue until notified by the Company.

The Company may randomly separate participants into curtailable groups of comparable net loads. The Company may establish a curtailment period that only affects one curtailable group, or multiple groups, on a given day. If only one curtailable group is curtailed, the Company will rotate between curtailable groups on subsequent curtailments.

Request for restriction of the customer's load to facilitate maintenance or replacement of equipment at or near the customer's premises shall not be deemed to establish a curtailment period.

**PARTICIPATION:**

The Company reserves the right to limit participation to a state-wide total of 3,000 kW of curtailable load.



Section No. 3  
Original Sheet No. D-48d

**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

**DEFINITIONS:**

**Curtailment Service:** Electric service which includes a credit for those customers who agree, on notice from the Company, to reduce electric demand to a predetermined level (firm power level).

**Firm Power Level:** The level to which the customer has previously agreed to reduce usage during a curtailment period.

**Expected Load at Time of System Peak:** The load which would normally be placed on the Company's system by the customer at the time of system peak. The expected load will be established between the Company and customer based on load profiles, known load additions or deletions, and typical operations.

**Curtailable Load:** Difference between the expected load at the time of system peak and the firm power level.





MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 1  
**2nd** 1st Revised Sheet No. i  
Canceling **1st** Original Sheet No. i

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MIDAMERICAN ENERGY COMPANY  
 ELECTRIC TARIFF NO. I  
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Section No. 1  
~~2nd~~1st Revised Sheet No. ii  
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**DESIGNATION: Electric Energy Efficiency Cost Recovery**

N

**1. Application**

Applicable in all service areas in South Dakota and to all customers served under the Company's rate schedules except for lighting customers. Separate factors will be calculated for residential and for non-residential customers.

**2. Purpose**

This factor is designed to recover energy efficiency expenditures and related costs approved by the South Dakota Public Utilities Commission (Commission).

**3. Implementation**

Energy efficiency expenditures and related costs will be recovered each year. Energy efficiency charges will be added to energy charges for purpose of billing.

**4. Determination of factor**

The cost recovery factors will be determined as follows:

$$ECR_c = \frac{EXP_c + REL_c}{S_c} + \frac{R_c}{S_c}$$

Where:

ECR = Energy efficiency charge in cents per kWh to be applied to customers served under each class (c) rate schedule.

c = Customer class, as follows:

Residential – RBD, RWD, RSD, RED and RTD

Non-Residential – GBD, GED, GDD, GPD, GHD, GUD, GTD, GSD, GWD, LLD, ALD, LPD, APD, LED, LHD, LTD/LOD, LVD/LRD, LDP/LDO, ABD and ATD

EXP = Energy efficiency expenditures by class as approved by the Commission.

REL = Commission approved related costs

S = Sales - Forecasted kWh sales for the recollection period.

R = Reconciliation amount. The net of the approved expenditures plus related costs for the annual period less actual energy efficiency factor revenues collected.

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MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
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Section No. 3  
Original Sheet No. C-3a

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**DESIGNATION: Electric Energy Efficiency Cost Recovery**

**5. Energy Efficiency Recovery Factors**

	<u>Residential</u>	<u>Non-Residential</u>
On-going MidAmerican Costs	\$0.00064/kWh	\$0.00020/kWh

**6. Reconciliation**

A reconciliation will be filed annually. The energy efficiency costs recovered from customers during the prior period will be compared to those which were allowed to be recovered. Any over/under collection, and any change in forecast sales, will be used to adjust the current energy efficiency cost recovery factors.



**Class of Service** Residential, Base Use - Price Schedule RBD

**Available** In the Company's South Dakota electric service area.

**Applicable** The residential electric base use service is:

- Applicable to single family dwellings (including incidental farm electric usage supplied through the same meter).
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service.

**Price** The monthly price schedule for electric base use is:

RBD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$7.00	\$7.00
First 1,000 kWh @	\$0.0634	\$0.0612
Additional kWh @	\$0.0610	\$0.0490

**Seasonable Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

MIDAMERICAN ENERGY COMPANY

**1<sup>st</sup> Revised** Original Sheet No. D-2ELECTRIC TARIFF NO. I Canceling **Original Sheet No. D-2** ~~Section IV 5 & 6 Original Issue Sheet No. 42~~

FILED with the SOUTH DAKOTA P.U.C.

**Class of Service** Residential, Electric Base Use with Electric Water Heating - Price Schedule RWD

**Available** In the Company's South Dakota electric service area.

**Applicable** The residential electric base use with electric water heating service is:

- Applicable to single family dwellings (including incidental farm usage supplied through the same meter) with an electric water heater.
- Water heater must conform to MidAmerican Energy specifications as shown on Sheet No. D-II and be in regular use for supplying the domestic hot water requirements of the residence.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.

**Price** The monthly price schedule for base use with electric water heating is:

<b>RWD Price Schedule</b>	<b>Summer per kWh</b>	<b>Winter per kWh</b>
Service Charge	\$7.00	\$7.00
First 1,000 kWh @	\$0.0634	\$0.0497
Additional kWh @	\$0.0610	\$0.0490

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

**Date Filed:** April 16, 2007 **Issued:** November 8, 1995 **Effective:** January 1, 2008 with billings on and after December 1, 1995

Issued by: Brent E. Gale-Naomi Czachura  
Vice President-Law and Regulatory Affairs

**Class of Service** Residential, Electric Space Heating - Price Schedule RSD

**Available** In the Company's South Dakota electric service area.

**Applicable** The residential electric space heating service is:

- Applicable to single family dwellings (including incidental farm usage supplied through the same meter) with electric space heating.
- Electric space heating devices must conform to MidAmerican Energy specifications, as shown on Section 3, Sheet No. D-III, be in regular use for supplying the domestic space heating requirements of the residence, and be the preponderant source of heat for the residence.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.

**Price** The monthly price schedule for electric space heating use is:

RSD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$7.00	\$7.00
First 1,000 kWh @	\$0.0634	\$0.0612
Additional kWh	\$0.0610	\$0.0180

**Seasonal Provision**

Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a later payment charge of 1.5 percent of the unpaid balance is added to the next bill.



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C. Canceling **Original Sheet No. D-4** IPS Section No. IV Sixth Revised Sheet No. 8

Section No. 3  
**1<sup>st</sup> Revised** Original Sheet No. D-4

**Class of Service** Residential, All Electric - Price Schedule RED

**Available** In the Company's South Dakota electric service area.

**Applicable** The residential all electric service is:

- Applicable to single family dwellings (including incidental farm usage supplied through the same meter) with electric space and water heating.
- Electric space heating devices must conform to MidAmerican Energy specifications, as shown on Section No. 3, Sheet No. D-III, be in regular use for supplying the domestic space heating requirements of the residence, and be the preponderant source of heat for the residence.
- Water heater must conform to MidAmerican Energy specifications, as shown on Section No. 3, Sheet D-11, and be in regular use for supplying the domestic hot water requirements of the residence.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.

**Price** The monthly price schedule for all electric use is:

RED Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$7.00	\$7.00
First 1,000 kWh @	\$0.0634	\$0.0497
Additional kWh	\$0.0610	\$0.0180

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2

**Date Filed: April 16, 2007** Issued: November 8, 1995 Effective: **January 1, 2008** with billings on and after December 1, 1995

Issued by: **Naomi G. Czachura** Brent E. Gale  
Vice President-Law and Regulatory Affairs





MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. 1  
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Section No. 3  
**1<sup>st</sup> Revised** Original Sheet No. D-5a  
**Canceling Original Sheet No. D-5a**

**Residential, Time-of-Use - Price Schedule RTD, continued**

<b>Peak Periods</b>	All time occurring after 12:00 p.m. (noon) but before 7:00 p.m. each weekday, Monday through Friday excluding specified holidays.
<b>Off Peak Periods</b>	All time occurring before 12:00 p.m. (noon) and after 7:00 p.m. each weekday, Monday through Friday, and all day each Saturday, Sunday and specified holidays, during every monthly billing period of each year.
<b>Specified Holidays</b>	Specified holidays are identified as: <ul style="list-style-type: none"><li>• Independence Day</li><li>• Labor Day</li></ul>
<b>Price Adjustments</b>	The prices charged through the energy cost adjustment <b>and electric energy efficiency cost recovery</b> are calculated as shown on Sheet Nos. C-1 <b>and C-3a</b> . The purpose is to track energy (including fuel and purchased interchange energy) costs <b>and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.</b>
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid, in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

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**Date Filed: April 16, 2007** Issued: ~~November 8, 1995~~ Effective: **January 1, 2008** with billings on and after

December 1, 1995

Issued by: **Naomi G. Czachura** Brent E. Gale  
Vice President-Law and Regulatory Affairs



MIDAMERICAN ENERGY COMPANY

Canceling **Original Sheet D-11**

ELECTRIC TARIFF NO. 1

FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
**1<sup>st</sup> Revised** Original Sheet No. D-11

PS Section No. IV 10 Fifth Rev.

Sheet No. 14,

#10 Third Rev. Sheet No. 15 and

40W and 10H Original Issue Sheet Nos. 16 & 16A

**Class of Service** General Service, Base - Energy Only Metering - Price Schedule GBD

**Available** In the Company's South Dakota electric service area.

**Applicable** The general service electric base energy only metering service is:

- Applicable to all electric service required on premises.
- Not applicable to customers with demands greater than 200 kW.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Applications.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.

**Price** The monthly price schedule for base energy only metering is:

GBD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$10.00	\$10.00
First 4,000 kWh @	\$0.0885	\$0.0842
Additional kWh @	\$0.0630	\$0.0554

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet No. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

**Date Filed: April 16, 2007** Issued: November 8, 1995 Effective: **January 1, 2008** with billings on and after December 1, 1995

Issued by: **Naomi G. Czachura** Brent E. Gale  
Vice President-Law and Regulatory Affairs



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. 1  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
**1<sup>st</sup> Revised** Original Sheet No. D-12  
Canceling **Original Sheet No. D-12** IPS Section No. IV Rider #55  
Fifth Revised Sheet No. 3

**Class of Service** General Service, Electric Heat - Energy Only Metering - Price Schedule GED

**Available** In the Company's South Dakota electric service area.

**Applicable** The general service electric heat-energy only metering service is:

- Applicable to customers with electric space heating.
- Not applicable to customers with demands greater than 200 kW.
- Electric space heating devices must conform to MidAmerican Energy specifications, see Section 3, Sheet No. D-IV, and be the preponderant source of heat for the premises, and where at least 50 percent of the electric load of the premise is located inside of the building or buildings with electric space heating.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.

**Price** The monthly price schedule for electric heat - energy only metering is:

GED Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$10.00	\$10.00
First 4,000 kWh @	\$0.0791	\$0.0472
Next 4,000 kWh @	\$0.0791	\$0.0472
Additional kWh @	\$0.0791	\$0.0472

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Date Filed: April 16, 2007** issued: November 8, 1995 Effective: **January 1, 2008** with billings on and after December 1, 1995

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Vice President-Law and Regulatory Affairs



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
*1<sup>st</sup> Revised* Original Sheet No. D-13  
Canceling *Original Sheet No. D - 13* PS-Section No. IV-13S & 13P  
Original Issue Sheet No. 22B

**Class of Service** General Service, Base - Demand Metered - Price Schedule GDD

**Available** In the Company's South Dakota electric service area.

**Applicable** The general service base demand metered service is:

- Applicable to all electric service required on premises.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.
- Not applicable to customers whose demand exceeds 200 kW.

**Price** The monthly price schedule for base demand metered use is:

GDD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$80.00	\$80.00
First 250 kWh per kW of demand @	\$0.0620	\$0.0530
Next 150 kWh per kW of demand @	\$0.0220	\$0.0210
Additional kWh @	\$0.0105	\$0.0105

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Demand** The kW as shown by or computed from the readings of the Company's demand meter, determined to the nearest kW, but not less than 20 kW.

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Date Filed:** April 16, 2007 **Issued:** November 8, 1995 **Effective:** January 1, 2008 with billings on and after December 1, 1995

Issued by: **Naomi G. Czachura** Brent E. Gale  
Vice President-Law and Regulatory Affairs

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**Class of Service** General Service, Base - Primary Voltage - Price Schedule GPD

**Available** In the Company's South Dakota electric service area.

**Applicable** The general service base primary metered service is:

- Applicable to all electric service required on premises.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.
- Not applicable to customers whose demand exceeds 200 kW.

**Price** The monthly price schedule for base primary metered is:

GPD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$200.00	\$200.00
First 250 kWh per kW of demand @	\$0.0469	\$0.0404
Next 150 kWh per kW of demand @	\$0.0216	\$0.0216
Additional kWh @	\$0.0103	\$0.0103
Transformer Ownership Credit	\$0.30/kW	\$0.30/kW

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Demand** The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW, but not less than 20 kW.

**Transformer Ownership Credit** Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.

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MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
~~1<sup>st</sup> Revised~~ Original Sheet No. D-14a  
Canceling ~~Original Sheet No. D-14a~~ IPS Section No. IV 13S & 13P  
~~Original Issue Sheet No. 22C~~

**General Service, Base - Primary Voltage - Price Schedule GPD, continued**

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| <b>Price Adjustments</b> | The prices charged through the energy cost adjustment <b><i>electric energy efficiency cost recovery</i></b> are calculated as shown on Sheet Nos. C-1 and C-3a. The purpose is to track energy (including fuel and purchased interchange energy) costs <b><i>and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.</i></b> |
| <b>Tax Adjustment</b>    | Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the remise is located. See Sheet No. C-2.  |
| <b>Payment Terms</b>     | Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.   |

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**Date Filed: April 16, 2007** Issued: ~~November 8, 1995~~ Effective: **January 1, 2008** with billings on and after

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Vice President-Law and Regulatory Affairs



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
**1<sup>st</sup> Revised** Original Sheet No. D-15a  
Canceling **Original Sheet No. D-15a** PS Section No. IV 12S & 12P  
Original Issue Sheet No. 22A

**General Service, Electric Heat - Demand Metered - Price Schedule GHD, continued**

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet **Nos. C-1 and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

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Vice President ~~Law and Regulatory Affairs~~



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. 1

FILED with the SOUTH DAKOTA P.U.C. Canceling **Original Sheet No. D-16a** PS Section No. IV #10 TOU  
Section No. 3  
**1<sup>st</sup> Revised** Original Sheet No. D-16a  
Original Issue Sheet No. 17

## General Service, Time-of-Use at Secondary Voltage - Price Schedule GUD, continued

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September billing periods
- Winter - October through May billing periods

### Time-of-Use Periods

Peak Periods	All time occurring after 12:00 p.m. (noon) but before 7:00 p.m. each weekday, Monday through Friday, excluding specified holidays
Off-Peak Periods	All hours not designated as on-peak hours.
Specified Holidays	New Year's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

### Character

Alternating current: 60 Hz; single or three phase, at secondary voltages offered by the Company, as further described in the Company's Rules and Regulations and Electric Rate Application.

### Demand

The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW.

### Reactive Demand

The kilovar as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.

### Price Adjustments

The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. 1  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
**1<sup>st</sup> Revised** Original Sheet No. D-17a  
**Canceling Original Sheet No. D-17a**

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**General Service, Time-of-Use at Primary Voltage - Price Schedule GTD, continued**

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September billing periods
- Winter - October through May billing periods

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Time-of-Use Periods**

Peak Periods	All time occurring after 12:00 p.m. (noon) but before 7:00 p.m. each weekday, Monday through Friday, excluding specified holidays.
Off-Peak Periods	All hours not designated as on-peak hours.
Specified Holidays	New Year's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

**Character** Alternating current: 60 Hz; single or three phase, at primary voltages offered by the Company, as further described in the Company's Rules and Regulations and Electric Rate Application.

**Demand** The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW.

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Issued by: **Naomi G. Czachura** Brent E. Gale  
Vice President-Law and Regulatory Affairs

**Class of Service** General Service, Separately Metered Electric Space Heating - Price Schedule GSD

**Available** In the Company's South Dakota electric service area.

**Applicable** The small general service separately metered electric space heating service is:

- Applicable to all customer classes with electric space heating supplied at nominal 240 volts through one separate meter at a single point of delivery to a solidly connected, permanently installed, load controlled electric heating installation.
- Heat pump, and any other electric space heating devices must conform to MidAmerican Energy specifications and be the customer's principal source of heating and in regular use.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.
- Not applicable to standby or supplementary service.

**Price** The monthly price schedule for separately metered electric space heating is:

GSD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$8.50	\$8.50
All kWh @	\$0.0610	\$0.0180

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Class of Service** General Service, Separately Metered Electric Water Heating - Price Schedule GWD

**Available** In the Company's South Dakota electric service area.

**Applicable** The small general service separately metered electric water heating service is:

- Applicable to 240 volt single-phase electric water heating service only. Energy for other purposes shall be metered through a separate meter.
- Water heater must conform to MidAmerican Energy specifications.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Application.

**Price** The monthly price schedule for separately metered electric water heating is:

GWD Price Schedule	Energy Charge per kWh
Service Charge	\$6.50
All kWh @	\$0.0300

**Seasonal Provision** There is no seasonal provision for this price schedule.

**Specifications** Each element of a two-unit heater shall be controlled by a thermostat with the thermostats so interlocked that both elements cannot operate simultaneously, excepting where both elements combined do not exceed a 5500 watt rating limit for a single element heater.

**Restrictions** The small general service separately metered electric water heating service is restricted to existing participants. The Company intends to discontinue this service with the filing of its next general rate case.

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Utilities Commission associated with the Company's energy efficiency programs.**

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MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I Canceling  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
**1<sup>st</sup> Revised** Original Sheet No. D-21a  
~~Section No. IV #13 Third Revised Sheet No. 21~~

**Large General Service, Base Use at Secondary Voltage - Price Schedules LLD and ALD, continued**

**Reactive Demand** The kVAR as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.

**Minimum Bill** The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment.

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. 1  
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Section No. 3  
~~1<sup>st</sup> Revised Original Sheet No. D-22a~~  
~~Cancelling Original Sheet No. D-22a~~

**Large General Service, Base Use at Primary Voltage - Price Schedules LPD and APD,  
continued**

<b>Demand</b>	The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW, but not less than 200 kW.	
<b>Reactive Demand</b>	The kVAR as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.	
<b>Minimum Bill</b>	The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment, less the transformer ownership credit.	
<b>Transformer Ownership Credit</b>	Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.	
<b>Price Adjustments</b>	The prices charged through the energy cost adjustment <b><i>and electric energy efficiency cost recovery</i></b> are calculated as shown on Sheet Nos. C-1 <b><i>and C-3a</i></b> . The purpose is to track energy (including fuel and purchased interchange energy) costs <b><i>and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.</i></b>	<b><i>N</i></b>           <b><i>N</i></b>
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.	
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.	

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Vice President-Law and Regulatory Affairs



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I Canceling  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
**1<sup>st</sup> Revised** Original Sheet Nos. D-23a  
~~IPS Section No. IV #12 Third Revised Sheet No. 19~~

**Large General Service with Electric Space Heating at Secondary Voltage - Price Schedule  
LED, continued**

<b>Demand</b>	The kW as shown by or computed from the readings of the Company's demand meter for the 15-minute period of the customer's greatest use during the month, determined to the nearest kW, but not less than 200 kW.	
<b>Reactive Demand</b>	The kVAR as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.	
<b>Minimum Bill</b>	The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment.	
<b>Price Adjustments</b>	The prices charged through the energy cost adjustment <b>and electric energy efficiency cost recovery</b> are calculated as shown on Sheet Nos. C-1 <b>C-3a</b> . The purpose is to track energy (including fuel and purchased interchange energy) costs <b>and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.</b>	<b>N</b>           <b>N</b>
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.	
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.	

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Vice President ~~Law and Regulatory Affairs~~



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
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Section No. 3  
**1<sup>st</sup> Revised** Original Sheet Nos. D-24a  
**Canceling Original Sheet Nos. D-24a**

**Large General Service with Electric Space Heating at Primary Voltage - Price Schedule**  
**LHD continued**

**Reactive Demand** The kVAR as shown by or computed from the readings of the Company's reactive demand meter, determined to the nearest kilovar. The customer is not billed for reactive demand unless the customer's power factor is less than 89.44% lagging, equivalent to situations where kVAR of reactive demand exceed 50 percent of billing demand. The power factor will be based on the highest kW demand and kVAR demand for the billing period.

**Minimum Bill** The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment, less the transformer ownership credit.

**Transformer Ownership Credit** Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

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ELECTRIC TARIFF NO. I  
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Section No. 3  
**1<sup>st</sup> Revised** Original Sheet Nos. D-26b  
Canceling **Original Sheet Nos. D-26b** IPS Section No. IV 16S & 16P  
Original Issue Sheet No. 23A

**Large General Service, Time-of-Use at Secondary Voltage - Price Schedule LTD/LOD,  
continued**

<b>Price Adjustments</b>	The prices charged through the energy cost adjustment <b>and electric energy efficiency cost recovery</b> are calculated as shown on Sheet Nos. C-1 <b>and C-3a</b> . The purpose is to track energy (including fuel and purchased interchange energy) costs <b>and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.</b>
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

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Vice President-Law and Regulatory Affairs





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ELECTRIC TARIFF NO. I  
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Section No. 3  
**1<sup>st</sup> Revised** Original Sheet No. D-27b  
Canceling **Original Sheet No. D-27b** IPS Section No. IV-16S & 16P  
Original Issue Sheet No. 23A

**Large General Service, Time-of-Use at Primary Voltage - Price Schedule LVD/LRD,  
continued**

<b>Transformer Ownership Credit</b>	Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.	
<b>Price Adjustments</b>	The prices charged through the energy cost adjustment <b>and electric energy efficiency cost recovery</b> are calculated as shown on Sheet Nos. C-1 <b>and C-3a</b> . The purpose is to track energy (including fuel and purchased interchange energy) costs <b>and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.</b>	<b>N</b>           <b>N</b>
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.	
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.	

**Date Filed: April 16, 2007** Issued: ~~November 8, 1995~~ Effective: **January 1, 2008** with billings on and after  
December 1, 1995

Issued by: **Naomi G. Czachura** Brent E. Gale  
Vice President-Law and Regulatory Affairs



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. I  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
~~1<sup>st</sup> Revised Original~~ Sheet No. D-28b  
~~Canceling Original Sheet No. D-28b~~

**Large General Service, Time-of-Use at Transmission Voltage - Price Schedule LDP/LDO,  
continued**

<b>Minimum Bill</b>	The service charge, plus the highest summer demand month during the past 12 months multiplied by the demand charge, plus the energy cost adjustment and the tax adjustment, less the transformer ownership credit.	
<b>Transformer Ownership Credit</b>	Should the customer elect to furnish transformers that would normally be furnished by the Company, the customer will receive a credit of \$0.30 per kW of billing demand.	
<b>Price Adjustments</b>	The prices charged through the energy cost adjustment <b><i>and electric energy efficiency cost recovery</i></b> are calculated as shown on Sheet Nos. C-1 <b><i>and C-3a</i></b> . The purpose is to track energy (including fuel and purchased interchange energy) costs <b><i>and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.</i></b>	<b>N</b>           <b>N</b>
<b>Tax Adjustment</b>	Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.	
<b>Payment Terms</b>	Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.	

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Vice President-Law and Regulatory Affairs



MIDAMERICAN ENERGY COMPANY

ELECTRIC TARIFF NO. I Canceling **Original Sheet No. D-45** ~~1<sup>st</sup> Revised Original Sheet No. D-45~~ ~~IPS Section No. IV 101 Sixth Revised Sheet No. 36~~

FILED with the SOUTH DAKOTA P.U.C.

Section No. 3

**Class of Service** Other Electric Service to Public Authorities - Water Pumping - Price Schedule ABD

**Available** In the Company's South Dakota electric service area.

**Applicable** To all electric service required for water and sewage pumping and treatment plants, by municipal, county, state and federal governments or agencies, subject to applicable terms and conditions of the Company's Rules and Regulations. Not applicable to standby, supplementary, or temporary service.

Prices	ABD Price Schedule	Summer per kWh	Winter per kWh
	Service Charge	\$10.00	\$10.00
	All kWh @	\$0.0565	\$0.0506

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September billing periods
- Winter - October through May billing periods

**Character** Alternating current; 60 Hz, single or three phase, at nominal voltages offered by the Company, as further described in Company's Rules and Regulations.

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet Nos. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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**Tax Adjustment** Service provided according to this price schedule is subject to state and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.

**Date Filed: April 16, 2007** Issued: November 8, 1995 Effective: **January 1, 2008** with billings on and after December 1, 1995

Issued by: **Naomi G. Czachura** Brent E. Gale  
Vice President-Law and Regulatory Affairs

**Class of Service** Other Electric Service to Public Authorities - Base - Energy Only Metering - Price Schedule ATD

**Available** In the Company's South Dakota electric service area.

**Applicable** The public authorities electric base energy only metering service is:

- Applicable to all electric service required on premises.
- Not applicable to customers with demands greater than 200 kW.
- Subject to applicable terms and conditions of the Company's Rules and Regulations and Electric Rate Applications.
- Not applicable to standby or supplementary service, except where the customer is operating an alternate energy production facility or a qualifying cogeneration or small power production facility.

**Price** The monthly price schedule for base energy only metering is:

ATD Price Schedule	Summer per kWh	Winter per kWh
Service Charge	\$10.00	\$10.00
First 4,000 kWh @	\$0.0620	\$0.0575
Additional kWh @	\$0.0470	\$0.0470

**Seasonal Provision** Summer and winter periods are defined as:

- Summer - June through September Billing Periods
- Winter - October through May Billing Periods

**Price Adjustments** The prices charged through the energy cost adjustment **and electric energy efficiency cost recovery** are calculated as shown on Sheet No. C-1 **and C-3a**. The purpose is to track energy (including fuel and purchased interchange energy) costs **and to recover the amount of expenditures and related costs approved by the South Dakota Public Utilities Commission associated with the Company's energy efficiency programs.**

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N

**Tax Adjustment** Service provided according to this price schedule is subject to stat and local taxes as well as any franchise fee calculations applicable to any city in which the premise is located. See Sheet No. C-2.

**Payment Terms** Service bills are due and payable within 20 days from the date the bill is rendered to the customer. When not paid in full by this date, a late payment charge of 1.5 percent of the unpaid balance is added to the next bill.



MIDAMERICAN ENERGY COMPANY  
ELECTRIC TARIFF NO. 1  
FILED with the SOUTH DAKOTA P.U.C.

Section No. 3  
Original Sheet No. D-48

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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service**

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**APPLICABLE:**

At the option of the customer under General Service and Large General Service Price Schedules who demonstrates a continuing ability and willingness to curtail 250 kW or more during Company-specified curtailment periods. Usage measured by more than one meter at multiple locations may not be combined for purposes of qualifying for service under this rider. The customer is subject to the applicable terms and conditions of the Company's Electric Service Policies.

**CHARACTER:**

Alternating current; 60 Hz; single or three phase nominal voltages offered by the Company, as further described in the Company's Electric Service Policies.

**NET MONTHLY RATE:**

Charges for service hereunder will be at the prices specified in the price schedules to which this rider applies, subject to the following additions and modifications:

**Curtailment Credit:**

Annual Credit per kW of curtailable load to be offered:

\$32.93/kW (year-to-year contract)



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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

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If a customer's failure to curtail to the firm power level when requested results in a Company purchase of capacity, as required by the Mid-Continent Area Power Pool Agreement or superseding agreement with a Reliability Coordinator such as Midwest Reliability Organization, herein collectively referred to as MAPP, the customer will reimburse the Company for a proportionate share of this capacity. This amount will not exceed the customer's total annual credit for curtailable load.

In the event of a failure of the customer's standby generating equipment, or other unanticipated non-recurring condition (excluding the customer's failure to reduce production levels), the Company, at its sole discretion, may waive the customer's proportionate share of a capacity purchase as required by MAPP. The customer shall notify the Company immediately by telephone, e-mail, or facsimile after obtaining knowledge of a condition contemplated by this paragraph.

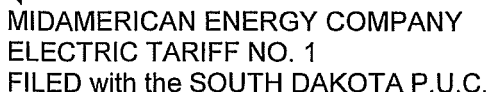
Any payment made to the Company for a customer's proportionate share of a capacity purchase as required by MAPP, or any waiver of such payment, shall not be construed as giving the customer the right to exceed the firm power level during any subsequent curtailment periods.

Customers may request a change in the firm power level annually. In addition, on 24 hours' notice, customers may cancel service under this rider. However, the customer will be responsible for its allocated share of any MAPP capacity purchases incurred prior to the effective time of the service cancellation and shall reimburse the Company for all credits received during the calendar year.

Customers shall notify the Company immediately upon obtaining knowledge of a need to increase its firm power level. If the requested increase in the firm power level is a result of an increase in the customer's expected load at time of system peak, the request will be automatically accommodated. If the requested increase in the firm power level is the result of the customer's desire to transfer load from its curtailable load to its firm power level, the Company will accommodate the request only if capacity is available.

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N



**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

**N**

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**Answer:** 1

1

## 1

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N



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**Class of Service Rider No. 5 to Electric General Service and Large General Service – Curtailment Service (Continued)**

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**CURTAILMENT PERIODS:**

The Company may establish a curtailment period by providing notice to the customer that curtailment is required, whenever at the Company's discretion such curtailment may be appropriate.

If a curtailment is to be ordered for the purpose of avoiding MAPP capacity purchases related to peak system loads, the Company may establish the curtailment period by giving a 30-minute notice to the customer, provided the customer was alerted to the possibility of curtailment 12 or more hours prior to the beginning of the curtailment period. Otherwise, the customer may require the Company to provide 2-hour notice for the purpose of avoiding MAPP capacity purchases. The curtailment period shall continue until the Company has provided specific notice of its termination, or a maximum of 6 hours, whichever is shorter. The maximum number of curtailment periods for the purpose of avoiding MAPP capacity purchases related to peak system loads (summer period only, June through September) during a calendar year will be 16.

If a curtailment is to be ordered because of operating conditions, the Company will endeavor to provide as much advance notice as practicable under the circumstances, but may establish the curtailment period immediately upon notice. In such a case, the curtailment would continue until notified by the Company.

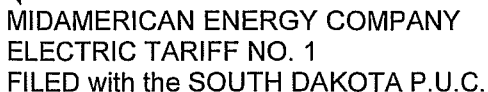
The Company may randomly separate participants into curtailable groups of comparable net loads. The Company may establish a curtailment period that only affects one curtailable group, or multiple groups, on a given day. If only one curtailable group is curtailed, the Company will rotate between curtailable groups on subsequent curtailments.

Request for restriction of the customer's load to facilitate maintenance or replacement of equipment at or near the customer's premises shall not be deemed to establish a curtailment period.

**PARTICIPATION:**

The Company reserves the right to limit participation to a state-wide total of 3,000 kW of curtailable load.





Section No. 3  
Original Sheet No. D-48d

### DEFINITIONS:

Curtailment Service: Electric service which includes a credit for those customers who agree, on notice from the Company, to reduce electric demand to a predetermined level (firm power level).

**Firm Power Level:** The level to which the customer has previously agreed to reduce usage during a curtailment period.

**Expected Load at Time of System Peak:** The load which would normally be placed on the Company's system by the customer at the time of system peak. The expected load will be established between the Company and customer based on load profiles, known load additions or deletions, and typical operations.

**Curtaillable Load:** Difference between the expected load at the time of system peak and the firm power level.

**N** **N**